BANGALORE WATER SUPPLY AND SEWRAGE BOARD
CAUVERY BHAVAN, KEMPEGOWDA ROAD
BANGALORE - 560 009

Telephone: 91-80-22945106 Fax: 91-80-22945106

Through E-Procurement

TENDER FOR THE WORK OF

DESIGN, CONSTRUCTION, COMMISSIONING OF **20 MLD STP AT KORAMANGALA BASED ON INTEGRATED FIXED FILM ACTIVATED SLUDGE (IFAS-PROCESS) WITH BNR, TERTIARY TREATMENT AND ODOUR CONTROL UNITS** INCLUDING 7 YEARS OPERATION AND MAINTENANCE **(TURNKEY PROJECT).**

VOLUME 1 of 4 (GENERAL REQUIREMENTS)

OCTOBER – 2025

Office of the *Chief Engineer (WWM-P-East)/CE(UWP)*
BANGALORE WATER SUPPLY & SEWERAGE BOARD
5th Floor, Cauvery Bhavan,
K.G. Road,
Bangalore -560 009
www.eproc.karnataka.gov.in

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B.W.S.S.B

SEQUENCE OF EVENTS

TENDER REFERENCE:	BWSSB/CE(WWM-E)/DCE(WWM-E&W)/TA-1/07/2025-26, dtd: 30.10.2025
NAME OF THE WORK	Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project).**
LAST DATE FOR RECEIPT OF PREBID QUERIES	17.11.2025 upto 17.30 Hours
DATE OF PRE-TENDER MEETING AND TIME:	18.11.2025 at 11.00 Hours
LAST DATE AND TIME FOR RECEIPT OF TENDERS:	02.12.2025 up to 17.30 Hours
TIME AND DATE OF OPENING OF TECHNICAL TENDERS	04.12.2025 up to 16.00 Hours
PLACE OF OPENING OF COVER ONE OF TENDERS (TECHNICAL PROPOSAL)	Office of the Chief Engineer (WWM-P-East), 5th Floor, Cauvery Bhavan, K. G. Road, Bangalore – 560 009, Ph: 91-80-22945106 Email id: cewwm@bwssb.gov.in Fax : +91-80-22945106
TIME AND DATE OF OPENING OF PRICE TENDER	Will be intimated to the Technically Qualified Tenderers
PLACE OF OPENING OF PRICE TENDER	Will be intimated to the Technically Qualified Tenderers
ADDRESS FOR COMMUNICATION:	Office of the Chief Engineer (WWM-P-East), 5th Floor, Cauvery Bhavan, K. G. Road, Bangalore – 560 009, Ph: 91-80-22945106 Email id: cewwm@bwssb.gov.in Fax : +91-80-22945106

BANGALORE WATER SUPPLY & SEWERAGE BOARD

SECTION 1: INVITATION FOR TENDERS (IFT)

(Through GOK e-procurement portal "www.eproc.karnataka.gov.in")

IFT No. BWSSB/CE(WWM-E)/DCE(WWM-E&W)/TA-1/06/2025-26, **dtd:** 30.10.2025

1. ***Tenders are invited through GOK e-Procurement platform*** **www.eproc.karnataka.gov.in** **by t*he Chief Engineer (WWM-P-East), Bangalore Water Supply and Sewerage Board,*** 5th floor, Cauvery Bhavan, K.G.Road, Bangalore – 560 009 from Tenderers, for the construction of works detailed in the Table 1. The Tenderers may submit Tenders for the works given in the Table 1. ***Two Cover Tender procedure as per Rule 28 of the KTPP Act shall be followed. The eligible Tenderers are required to submit Technical Proposal and Price proposal in electronic form by up loading the same into the electronic tender box on the web site. Initially only the Technical Proposals will be opened. The price proposal of the Tenderer will be opened only if the Tenderer is found to be qualified to execute the tendered works. The Tenderers are advised to note the minimum qualification criteria specified in Clause 3 of the Instructions to Tenderers to qualify for award of the contract.***

2. All interested and eligible bidders could download the complete set of bid documents from the website https://eproc.karnataka.gov.in after obtaining the users ID and password. Further assistance for participation in the e-Procurement bidders may refer to this e-Portal.
   Bidders may obtain further information from the office of the Employer, at the following address:

   Office of the Chief Engineer (WWM-P-East),
   Bangalore Water Supply and Sewerage Board,
   5th Floor, Cauvery Bhavan, K. G. Road,
   Bangalore – 560 009, Ph: 91-80-2294 5106
   Fax : +91-80-2294 5106
   Email id: cewwm@bwssb.gov.in

3. Tender must be accompanied by earnest money deposit specified for the work in the Table 1 below. Earnest money deposit will have to be paid in any one for the forms as specified in the tender document and shall have to be valid for 45 days beyond the validity of the tender. The last date for the receipt of the tender is on **02.12.2025 upto 17.30 hours.** The technical proposals will be opened at **16:00 hours** on **04.12.2025,** in the presence of Tenderers' representatives who choose to attend. In the event of the specified date of the tender opening being declared a holiday for the Employer, the tenders will be opened at the same time and place on the next working day.

4. The tender shall be submitted on the website prior to the deadline of submission of tenders as given in Para 3 above. Hard copies of the proposal will not be accepted by the Employer. **The system will automatically generate a time stamp that will acknowledge the submission of the tender by the Tenderer**. Any attempt of tender submission after the deadline of the submission of tenders will be automatically rejected by the system. The price proposals will be opened in the presence of representatives of those technically qualified bidders, who choose to attend at the time and at the address to be advised by the Employer after the evaluation of the Technical Proposals. The Employer will not be responsible for any costs or expenses incurred by the Tenderers in connection with preparation and / or submission of tenders.

5. A Pre-tender meeting will be held on **18.11.2025 at 11.00** hours at the **Office of the Chief Engineer (WWM-P-East), 5th floor, Cauvery Bhavan, K G Road, Bangalore – 560 009**, to clarify the issues if any, and to answer questions on any matter that may be raised at that stage as stated in Clause 8.2 of 'Instructions to Tenderers' of the tender document.

6. Bidders can access tender documents from the website and upload the required details; those are mentioned in different sections in the bid document into electronic tender box on the website. Scanned documents those are required to be furnished as per Section 2, 3 & 4 of the bid document shall be submitted through e-portal preferably in PDF format for clear vision.

7. The cost of the tender document once paid will not be refunded.

8. Bangalore Water Supply and Sewerage Board reserves the right to cancel or annul the entire or part of this process of invitation at any time without assigning any reason.

9. Bidders shall submit offers that comply with the requirements of the bid document, including the basic technical design as indicated in the drawing and specifications. Alternatives will not be considered. The attention of the bidders is drawn to clause 23 regarding the rejection of the bids, which are not substantially responsive to the requirement of the bid document.

10. Other details can be read from the tender documents.

Chief Engineer (WWM-P-East)

Bangalore Water Supply and Sewerage Board

Table 1: Description of Tender

Sl. No	Name of the work	Tender processing fee	Amount put to tender INR Crore	Bid security INR Lakhs	Period of completion in Months	Eligibility criteria during last 5 years (2020-21, 2021-22, 2022-23, 2023-24 and 2024-25)	
						Average annual Turnover (in all classes of Civil Engg. Construction works) for any of the two years during the last five years Rs. Crore	Performance and work Qualification
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
1	Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project).**	As per e-procurement portal.	**73.60 (Capex – 62.10 + O&M – 11.50)**	**73.60**	**30**	**70.0**	Attached separately

Chief Engineer (WWM-P-East)

Bangalore Water Supply and Sewerage Board

SECTION 2: INSTRUCTIONS TO TENDERERS (ITT)

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A. GENERAL

1.0 Scope of Tender

1.1 The **Chief Engineer (WWM-P-East)**, (Referred to as Employer in these documents) invites tenders following Two Cover tender procedure, from eligible Tenderers, for the construction of works (as defined in these documents and referred to as "the works") detailed in the Table given in the Invitation for Tenders (IFT). The Tenderers may submit tenders for the works detailed in the Table 1 given in IFT.

2.0 Eligible Tenderers

2.1 Tenderers shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Karnataka (GoK)

2.2 Joint Ventures (JV)

2.2.1 Eligibility: If the Tenderer's comprises a number of firms combining their resources in a joint venture, the legal entity constituting the joint venture and the individual partners in the joint venture shall meet the requirement of Clause 2.1 above.

2.2.2 Qualification Criteria: The joint venture must satisfy collectively the criteria of clause 3. For this purpose the following data of each member of the joint venture may be added together to meet the collective qualifying criteria:

(a) average annual turnover (Sub Clause 3.1.1.[b]);
(b) Particular experience including key production rates (Sub Clause 3.1.2);
(c) Financial means (Sub Clause 3.1.3 (a), 3.1.3 (b), and 3.1.3 (c);
(d) Personnel capabilities (Sub Clause 3.1.4); and
(e) Equipment capabilities (Sub Clause 3.1.5).

Each partner of Joint Venture must satisfy the following criteria individually

(a) General construction experience for the period of years stated in Sub Clause 3.1.1 (a),

(b) Adequate sources to meet financial commitments on other contracts (Sub Clause 3.1.3 (b) and as stated in sub Clause 2.2.5,

(c) Financial soundness (Sub Clause 3.1.3 (b) & as stated in sub Clause 2.2.5 and
d) Litigation history (Sub Clause 3.1.6)
e) Tender Capacity (Sub Clause 3.1.8) & as stated in sub Clause 2.2.5

In accordance with the above, the Tenderer shall include all related information required under Clause 3 for individual partners in the joint venture.

2.2.3 Partner in Charge: One of the partners, who is responsible for performing a key function in contract management or is executing a major component of the proposed contract, shall be nominated as being in charge during the tendering period and in the event of a successful tender, during contract execution. The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture; this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.

2.2.4 Partner Limitation: The number of partners in a JV is **One (1)**; however, the attention of Tenderers is drawn to the provisions of Sub-Clause 2.2.5.

2.2.5 Joint and Several Liability: All partners including lead partner of the joint venture shall be legally liable, jointly and severally, during the tendering process and for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under Sub-Clause 2.2.3 above. To enable the above, the partner of the joint venture shall meet not less than **25% of the turnover criteria and Lead Partner shall meet minimum 50% of the turnover criteria** specified in sub-clauses 3.1.1.(b), 3.1.3 and 3.1.8 below. All members of the joint venture must have experience in execution of similar works stated in sub-clause 3.1.1 (a).

On successful award of contract the Lead Partner shall have the registered office in India in the firm name before signing the Contract.

A Company/ Organization/ J V Partner cannot assign any right and obligation of a project to its subsidiary/associate.

2.2.6 Joint Venture Agreement: A copy of the Joint Venture Agreement (JVA) entered into by the partners shall be submitted with the Application. Pursuant to Sub-Clauses 2.2.1 to 2.2.3 above, the JVA shall include among other things: the JV's objectives; the proposed management structure; the contribution of each partner to the joint venture operations; the commitment of the partners to joint and several liability for due performance; recourse/sanctions within the JV in the event of default or withdrawal of any partner; and arrangements for providing the required indemnities.

3.0 Qualification of the Tenderer:

3.1 All Tenderers shall provide the requested information accurately and in sufficient detail in Section 3: Qualification Information

Tenderers meeting all the following minimum pass–fail criteria regarding their general and particular construction experience, financial position, personnel and equipment capabilities, and other relevant information as demonstrated by the Tenderers responses in the Forms provided in section 3. The qualifications, capacity, and resources of proposed subcontractors will not be taken into account in assessing Tenderers.

3.1.1 <u>General Construction Experience:</u> The Tenderers shall provide evidence that

(a) it has been actively engaged in the civil works construction business for at least the last five years prior to the date of submission of applications, in the role of prime contractor, management contractor, partner in a joint venture, or subcontractor, and

(b) The Tenderer having minimum average annual turnover of **INR 70 Crores** in any two financial years calculated as total certified payments received for contracts in progress or completed, within the last 5 years (ending 31st March'2025). In case of JV in this contract, Lead Partner shall meet minimum 50% of required turnover and partner shall meet minimum 25% of required turnover.

The average annual turnover is defined as the total of certified payment certificates for works in progress or completed by the firm or firms comprising the Tenderers, divided by the number of years.

Turnover of previous years shall be given a weight of 10% per year as given below

Financial Year	**Factor**
2020-2021	1.46
2021-2022	1.33
2022-2023	1.21
2023-2024	1.10
2024-2025	1.00

Note: The rates of exchange to be used by the bidder for currency conversion during bid preparation shall be the selling rates for similar transactions prevailing on the date, 28 days prior to the date of bid opening of the Technical Proposal, as published by the Reserve Bank of India. If exchange rates are not so published for the bid currency, the bidder shall state the rates used and the source to be provided.

3.1.2 Particular Construction Experience

(a) Contracts of Similar Size and Nature: The Applicant shall provide evidence that he has successfully completed Construction/Upgradation of One similar contract of value not less than **INR 44 Crores** in last Five (5) Years. The similarity shall be based on the physical size, complexity, methods, technology or other characteristics as described in Specifications.

(b) Experience in Key Activities: The Tenderers shall provide evidence that it has a minimum experience in the following key activities,

(i) Experience in Execution of STPs

The Applicant as a sole entity or a Lead Partner and or Partner in a Joint Venture shall have successfully executed/upgraded, including complete Design, Procurement, Supply, Installation, Construction, Testing, and Commissioning of all Civil, Mechanical, Electrical, and Instrumentation Works of minimum One (1) No. Sewage Treatment Plant of 16 MLD Capacity, based on the Integrated Fixed Film Activated Sludge (IFAS) to meet the discharge standards of pH - 5.5 to 9.0, BOD - 10 mg/l, COD - 50 mg/l, TSS - 10 mg/l, TN-10 mg/l, TP-1 mg/l and Fecal Coliform - 230 MPN/100 ml and should be in operation for at least One (1) year in last five (5) years from date of tender notification.

In case of JV in this contract, Lead Partner must have completed one project as mentioned above.

(ii) Experience in Biological Nutrient Removal (BNR)

The Applicant as a sole entity or a Lead Partner and or Partner in a Joint Venture shall have successfully executed/upgraded, including complete Design, Procurement, Supply, Installation, Construction, Testing, and Commissioning of all Civil, Mechanical, Electrical, and Instrumentation Works of minimum One (1) No. Sewage Treatment Plant with minimum 16 MLD capacity, based on the Integrated Fixed Film Activated Sludge (IFAS) with Biological Nutrient (Nitrogen and Phosphorus) Removal in last five (5) years from date of tender notification.

In case of JV in this contract, Lead Partner must have completed one project as mentioned above.

(iii) Experience in Operation and Maintenance

The Applicant as a sole entity or a Lead Partner or Partner in a Joint Venture shall have particular experience in Operation and Maintenance of at least minimum One (1) No. Sewage Treatment Plant of 16 MLD Capacity, based on the Integrated Fixed Film Activated Sludge (IFAS) to meet the discharge standards of pH - 5.5 to 9.0, BOD - 10 mg/l, COD - 50 mg/l, TSS - 10 mg/l, TN-10 mg/l, TP-1 mg/l and Fecal Coliform - 230 MPN/100 ml and should be in operation for at least One (1) year in last five (5) years from the date of Tender Notification.

(iv) Experience in Fine Filtration

The Applicant as a sole entity or a Lead Partner and or Partner in a Joint Venture shall have successfully executed, including complete Design, Procurement, Supply, Installation, Construction, Testing, and Commissioning of all Civil, Mechanical, Electrical, and Instrumentation Works of at least One (1) No. Tertiary Treatment Unit of 16 MLD capacity with Disc Filter/Ultrafiltration/Sand Filter.

Financial Year	Factor
2020-2021	1.46
2021-2022	1.33
2022-2023	1.21
2023-2024	1.10
2024-2025	1.00

Note: The rates of exchange to be used by the bidder for currency conversion during bid preparation shall be the selling rates for similar transactions prevailing on the date, 28 days prior to the date of bid opening of the Technical Proposal, as published by the Reserve Bank of India. If exchange rates are not so published for the bid currency, the bidder shall state the rates used and the source to be provided.

Notes:

1. The Parameters defined in clause 3.1.2 shall be designed and shall met at the outlet of the STP.
2. In case of JV in this Contract, the prequalification criteria will be met by both JV partners jointly.
3. Bidders are required to substantiate the qualification information by submission of appropriate experience certificates issued by the concerned end user.
4. Relevant contract extracts must be submitted in support of the outlet guarantees.
5. The experience certificates shall demonstrate the scope of the Bidders and shall include complete design, procurement, supply, installation, construction, testing and commissioning of all civil, mechanical, electrical and instrumentation works.

3.1.3 Financial Capabilities

(a) Minimum Required Cash Flow amount: The Tenderers shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the **construction cash flow requirements** for the subject contract in the event of stoppage, start-up, or other delays in payment, of the minimum **INR 18 Crores**, net of the Tenderers commitments for other contracts

(b) In the relevant Information Form, the Tenderers shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

(c) The audited balance sheets or other financial statements acceptable to the Employer, for the last five years shall be submitted and must demonstrate the current soundness of the Tenderers financial position and indicate its prospective long-term profitability. If deemed necessary, the Employer shall have the authority to make inquiries with the Tenderers bankers. As a minimum, a Tenderers net worth calculated as the difference between total assets and total liabilities should be positive.

(d) The tenderer who have applied for corporate debt restructuring (CDR)/ strategic debt restructuring (SDR)/ facing recovery preceding from Financial Institution/ facing winding up proceedings / those under BIFR in the last 5 Financial Years (i.e.,2020-21 to 2024-25). In this regard, the Bidder shall submit along with tender, an affidavit along with certificate of statutory Auditor that the bidder is not under CDR/SDR/ not facing recovery preceding from Financial Institutions / not facing winding up proceedings / not under BIFR need to be submitted by the tenderer.

(e) As on date of submission of bid Tenderers blacklisted on Government of India / Government of Karnataka / any other state or any Central/ State Government undertaking are not eligible to bid.

(f) Tenderer to upload latest Bankers certificate valid till tender validity

3.1.4 Personnel Capabilities

The Tenderer shall supply general information on the management structure of the firm and shall make provision for suitably qualified personnel to fill the key positions listed below. The Tenderer must have qualified employed personnel to fill the following positions. The Tenderer shall supply information, of the personnel with relevant experience, on a prime experience requirement specified below: candidate and on an alternate for each position; both of whom shall meet the minimum experience requirements specified below:

Sl. No.	Position	No of Position	Minimum Education (Degree-Discipline)	Experience (Years)		
				Total	In Similar Work	As Manager of Similar Works
1	Contractor's Representative	1	M/B – Any discipline	15	-	6
2	Project/Construction Manager	2	M-ENE/ Civil/BE-ENE/Civil	12/15	8/10	5

Sl. No.	Position	No of Position	Minimum Education (Degree-Discipline)	Experience (Years)		
				Total	In Similar Work	As Manager of Similar Works
3	Design Manager	1	M- ENE	10	8	5
4	Asst. Construction Manager- Multidisciplinary Works	2	B - Civil	10	6	2
5	Safety Engineer	2	D/PGD -Safety	10	2	N/A
6	Senior Surveyor	1	B-S/CE	5	3	N/A
7	Process Engineer	1	M-ENE/ BE-ENE	10/12	6/8	N/A
8	Mechanical Engineer	1	M-ME/ B-ME	10/12	2	NA
9	Hydraulic Engineer	1	B-CE	10	3	N/A
10	Structural Engineer	1	M- Structures/ B-CE	10/12	6	NA
11	Electrical Engineer	1	B-Elec	10	2	NA
12	Instrumentation Engineer	1	B-I&C	10	2	NA

NA: Not applicable

Degree: M = Masters; B = Bachelors; D=Diploma, PGD= Post Graduate Diploma; Discipline: E = General Engineering; CE = Civil Engineering; CHE = Chemical Engineering; ME = Mechanical Engineering; EE = Electrical Engineering; ENE = Environmental Engineering; IE = Instrumentation Engineering; S = Surveying; PHE = Public Health Engineering; SE = Sanitary Engineering

The requisite information shall be furnished as per <u>Application Forms.</u>

3.1.5 <u>Equipment Capabilities</u>

The Tenderer should own, or have assured access (through hire, lease, purchase agreement, availability of manufacturing equipment, or other means) to the equipment /machines listed hereunder and in full working order, and must demonstrate that based on known commitments, they will be available for use in the proposed contract. The Tenderer may also list additional equipment that he would propose for the contract, together with an explanation of the proposal.

Sl.No.	Equipment Type and Characteristics	Minimum Number Required (Nos.)
1	Crane or Hydra (10 Ton)	3
2	Loader cum back hoe (0.7 Cum)	2
3	Excavators (1.0 Cum)	2
4	Tipper/Dumper Trucks (10 Cum)	3
5	DG Set (30 KVA)	2
6	Concrete Batching Plant - Automatic (Minimum 20 Cum Capacity)	1

3.1.6 <u>Litigation History</u>

The Tenderer shall provide accurate information on any litigation or arbitration resulting from contracts completed or under its execution over the last five years. A consistent history of awards against the Tenderer or any partner of a joint venture may result in failure of the tender. The litigation history in particular with BWSSB shall also be provided.

3.1.7 Approach and Construction Methods

The Tenderer must attach with their application, a note giving a general description on the approach to the construction methods, modification works, technologies, quality assurance schemes proposed, deployment schedule of equipment proposed to be used, etc., for ensuring completion of the work as per specifications within the desired timeframe.

3.1.8 Tender Capacity

Applicant who meet the minimum qualification criteria will be qualified only if their available tender capacity at the expected time of tendering is more than the total estimated cost of the works. The available tender capacity will be calculated as under:

Assessed Available Tender Capacity = (A*N*1.5-B), where

A = Maximum value of works executed in any one year during the last five years (updated to **2024-25** price level) which will take into account the completed as well as works in progress;

B = Value at **2024-25** current price level of the existing commitments and on-going works to be completed during the next 12 months (1 year) (period of completion of works for which tenders are invited); and

N = Number of years prescribed for completion of the works for which the tenders are invited. (Twelve Months (12) months including monsoon period.)

The Maximum value of works executed in one year during the last five years shall be given weight of 10% per year as given below,

Financial Year	Factor
2020-2021	1.46
2021-2022	1.33
2022-2023	1.21
2023-2024	1.10
2024-2025	1.00

3.1.9 Sub-contractors experience and resources shall not be taken into account in determining the Tenderers compliance with the qualifying criteria.

3.2 Even though the Tenderer meet the above criteria, they are subject to be disqualified if they have:

i. made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

ii. record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or

iii. Participated in the previous Tender for the same work and had quoted unreasonably high tender prices and could not furnish rational justification.

4.0 One Tender per Tenderer

4.1 **Each** Tenderer/firm shall submit only one tender for this work. A firm shall submit only one tender in the same tendering process as a Tenderer. No firm can be a subcontractor while submitting a tender in the same tendering process. A firm, if acting in the capacity of **Subcontractor** in any tender, may participate in more than one tender, but only in that capacity. A Tenderer who submits, or participates in, more than one tender will cause all the proposals in which the Tenderer has participated to be disqualified.

5.0 Cost of Tendering

5.1 The Tenderer shall bear all costs associated with the preparation and submission of his tender, and the Employer will in no case be responsible and liable for those costs.

6.0 Site Visit:

6.1 The Tenderer at his own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for construction of the Works. The cost of visiting the Site and any Survey/Site Investigation shall be at the Tenderers's own expense. The bidder shall submit a self declaration stating that the site of work has been visited and ascertained the facts about the site conditions, constructional area, rehabilitation works proposed to be taken etc.

B. TENDER DOCUMENTS

7.0 Content of Tender Documents

7.1 The set of tender documents shall have all the Sections given in Page 2:

7.2 Both the sets should be completed and returned with the tender.

8.0 Clarification of Tender Documents

8.1 A prospective Tenderer requiring any clarification of the tender documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex and facsimile) at the Employer's address indicated in the invitation to tender. The Employer will respond to any

request for clarification which he receives earlier than 15 days prior to the deadline for submission of tenders. Copies of the Employer's response will be forwarded to all purchasers of the tender documents through e-mail, including a description of the enquiry but without identifying its source. Same will be available through e-procurement website.

8.2 Pre-tender meeting:

8.2.1 This meeting will be held on **18.11.2025 at 11.00** hrs in the Office of the Chief Engineer (WWM-P-East), BWSSB, 5th floor, Cauvery Bhavan, BWSSB, K G Road, Bangalore 560 009.

8.2.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage

8.2.3 The Tenderer is requested to submit any questions in writing or by cable to reach the Employer not later than one week before the meeting.

8.2.4 Minutes of the meeting, including the text of the questions raised (without identifying the source of enquiry) and the responses given will be transmitted without delay to all purchasers of the tender documents. Any modification of the tender documents listed in Sub-Clause 7.1 which may become necessary as a result of the pre-tender meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 9 of ITT and not through the minutes of the pre-tender meeting.

8.2.5 Non-attendance at the pre-tender meeting will not be a cause for disqualification of a Tenderer.

9.0 Amendment of Tender documents

9.1 **Before** the deadline for submission of tenders, the Employer may modify the tender documents by issuing addenda.

9.2 Any **Addendum** thus issued shall be part of the tender documents and shall be communicated in writing or by cable to all the purchasers of the tender documents.

9.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their tenders, the Employer shall extend as necessary the deadline for submission of tenders, in accordance with Sub-Clause 16.2 below.

C. PREPARATION OF TENDERS

10.0 Documents comprising the Tender

10.1 The tender submitted in e-procurement by the Tenderer shall contain the documents as follows:

(a) Evidence of Earnest Money Deposit payment;

(b) Scanned copies of Updated Prequalification Information as per formats given in Section 3;

(c) The form of Tender (in the format indicated in Section 4) duly signed

(d) Priced Schedule (Section 9);

and any other materials required to be completed and submitted by Tenderers in accordance with these instructions. The documents listed under Sections 3, 4, 6 and 9 shall be filled in without exception. **ALL THE PHOTOCOPIES OF THE DOCUMENTS SHOULD BE NOTARISED. (Necessary & particular documents required for meeting the tender conditions shall only be notarised and uploaded in the e-procurement. Further unnotarised documents will not be considered).**

10.2 Tenderers submitting tenders together with other contracts stated in the IFT to form a package will so indicate in the tender together with any discounts offered for the award of more than one contract.

11.0 Tender Prices

11.1 The contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities (Price Schedule) submitted by the Tenderer.

11.2 The Tenderer shall fill in the unit rates in figures for all items of the Works described in the Price Schedule. The system will automatically convert the unit rates mentioned in figures to words and also calculate the amount of that item as well as the total tender value. *Items for which no rate is entered by the* Tenderer *will not be paid for by the Employer when executed and shall be deemed covered by the other rates in the Price Proposal.*

11.3 All taxes (GST) payable by the contractor under the contract, or for any other cause, shall be included in the rates, prices and total Tender Price submitted by the Tenderer.

11.4 The prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract in accordance with the provisions of Clause of the Conditions of Contract.

12.0 Tender Validity

12.1 **Tenders** shall remain valid for a period not less than **One Eighty (180) days** after the deadline date for tender submission specified in Clause 16. **A tender valid for a shorter period shall be rejected by the Employer as non-responsive.**

12.2 In **exceptional** circumstances, prior to expiry of the original time limit, the Employer may request that the Tenderers may extend the period of validity for a specified additional period. The request and the Tenderers' responses shall be made in writing or by cable. A Tenderer may refuse the request without forfeiting his earnest money deposit. A Tenderer agreeing to the request will not be required or permitted to modify his tender but will be required to extend the validity of his earnest money deposit for a period of the extension, and in compliance with Clause 13 in all respects.

13.0 Earnest Money Deposit (EMD)

13.1 The Tenderer shall furnish, as part of his tender, earnest money deposit in the amount as shown in column 5 of the Table 1 of IFT for this particular work. Earnest money deposit will have to be paid in any one for the forms as specified in the tender document and shall have to be valid for **45 days beyond the validity of the tender.**

EMD forfeited firms in the previous contracts will not be eligible to participate in the tender. Blacklisted firms in the previous contracts/bids in the last 1 (one) year will not be eligible to participate in the tender.

13.2 The Tenderer can pay the Earnest Money Deposit (EMD) in the e-procurement portal using any of the following Modes:

13.2.1 Direct Debit using internet banking (online payment)

13.2.2 NEFT (online payment)

13.2.3 Over the Counter (OTC)

NEFT Payment Procedure

If a contractor/supplier chooses to make payment of EMD/tender processing fees using Reserve Bank of India's (RBI) National Electronic Fund Transfer (NEFT) system, the contractor/supplier will need to log into e-Procurement system, access the tender for which bid is being created and then select the NEFT option under the payment section and print the Challan shown in that section. The printed challan will have the unique bid reference number, account details of Government of Karnataka and the amount to be remitted. The contractor has to submit the printed challan to its bank-branch (NEFT enabled) and request for an account-to-account transfer, wherein the money will get transferred from the contractors' bank account to GoK's bank account. The contractor should ensure that NEFT transfer instructions are executed and the funds are wired to the Government of Karnataka's principal account before the last date for bid submission and preferably 24 hours before the last date for bid submission. If the contractor's bank transfers/wires the money after the last date for bid submission, the contractor's bid will be liable for rejection. Upon executing the transfer, the contractor's bank will provide a reference number generated by NEFT software as confirmation of transfer, which has to be inputted by contractor in the payment section of its bid as payment confirmation before the bid is submitted (i.e.) as a pre-requisite for bid submission. Also, the account number from which the funds were transferred have to be inputted in the e-Procurement system as part of its bid.

The Tenderer bid will be evaluated only on confirmation of receipt of the payment (EMD) in the Government of Karnataka central pooling a/c.

EMD amount will have to be submitted by the supplier/contractor taking into account the following conditions:

a. EMD will be accepted only in the form of electronic cash (and not through Demand Draft or Bank Guarantee) and will be maintained in the Govt.'s central pooling account until the contract is closed.

b. The entire EMD amount for a particular tender has to be paid in a single transaction

For further details on e-Payment services refer to e-procurement portal for more details on the process.

OTC Payment Procedure

If a contractor/supplier chooses to make payment of EMD/tender processing fees Over The Counter (OTC) in any of the designated Bank branches listed in the e-Procurement web-site (www.eproc.karnataka.gov.in), the contractor/supplier will need to log into e-Procurement system, access the tender for which bid is being created and then select the OTC option under the payment section and print the Challan shown in that section. The printed challan will have the unique bid reference number and the amount to be remitted. Along with the challan, contractor can choose to make the payment either in the form of cash or in the form of Demand Draft. Cheque payments will not be accepted. The contractor is requested to specifically inform the bank officer to input the unique bid reference number printed in the challan in the banking software.

Upon successful receipt of the payment, the bank will provide a 16-digit reference number acknowledging the receipt of payment. This 16-digit reference number has to be inputted by contractor in the payment section of its bid as payment confirmation before the bid is submitted (i.e.) as a pre-requisite for bid submission.

13.3 The earnest money deposit of unsuccessful Tenderers will be returned within 30 days of the end of the tender validity period specified in Sub-Clause 12.1.

13.4 The earnest money deposit of the successful Tenderer will be discharged when the Tenderer has signed the Agreement and furnished the required Performance Security.

13.5 The earnest money deposit may be forfeited:

(a) If the Tenderer withdraws the Tender after tender opening during the period of tender validity;

(b) If the Tenderer does not accept the correction of the Tender Price, pursuant to Clause 24; or

(c) In the case of a successful Tenderer, if the Tenderer fails within the specified time limit to

(i) Sign the Agreement; or

(ii) Furnish the required Security deposit

14.0 Format and signing of Tender

14.1 The **completed** bid comprising of documents indicated in ITB 10, should be uploaded in the e-procurement wizard of Government of Karnataka through "e-portal" along with scanned copies of requisite certificates those are mentioned in different sections in the bid document and EMD shall be paid through OTC, NEFT, and DEBIT CARD through e-portal only.

14.2 All the documents should be uploaded to the e-procurement wizard of GOK. Tenderer should take a print out of the declaration letters provided in the website on company letter head and should sign, stamp and upload the same to the e-procurement wizard.

14.3 Deleted.

14.4 Tender shall be signed by a person or persons duly authorized to sign on behalf of the Tenderer.

D. SUBMISSION OF TENDERS

15.0 Uploading and Submission of Tenders

15.1 The tenders should be uploaded only through e-portal system. Tender should contain

15.1.1 A. Technical Tender consisting of following:

a. All the documents with required details in prescribed format; those are mentioned in different sections in the Tender. Form of Tender, Declaration statement regarding Customs/ Excise duty exemption for materials/ construction equipment brought to site as mentioned in

Section 2, etc., shall be downloaded, filled with required details, signed, scanned & uploaded to the e-procurement website **www.eproc.karnataka.gov.in** on or before the time and date indicated in notification /Section I IFT.

b. **Tender security (Earnest money deposit).** Tender security can be paid in the form of OTC, NEFT and DEBIT CARD in e-procurement of Gov. of Karnataka.

The above documents along with notarized copies of documentary evidences as indicated in Section - 2 ITT, Section-3 Qualification information & Section 4 Forms of Tender shall be scanned and uploaded to the website compulsorily, failing which tender will be rejected in view of incomplete bid document and

15.1.2 B. Financial Tender consisting of Price Schedule: The Tenderer shall enter the rates (in figures only) in the website on or before the time and date indicated in notification /Section 1 IFT.

In case of failure of the Tenderer to upload the same within stipulated time i.e., **dated: 04.12.2025 upto 17.30 hours**, their tender will be rejected.

NOTE:

1. URL of the Website for tender submission through e-Procurement & Address for uploading of Tender security are as follows:

i **www.eproc.karnataka.gov.in.**

ii The Chief Engineer (WWM-P-East), BWSSB, 5th floor, Cauvery Bhavan, KG Road, Bangalore – 560 009
Tel Fax; 91-80-2294 5106, Telephone: 91-80-2294 5106

2. The details related to submission of tenders, downloading / uploading of documents or other details are available online in the help wizard, Vendor manual & FAQ of above website.

15.2 Deleted

15.3 Unique Identification Number will be automatically generated by the server with time -stamp and sent to the account of the bidder as an acknowledgement after bidder finally uploads the bids.

15.4 Deleted

16.0 Deadline for submission of the Tenders

16.1 Tenders must be received by the Employer through e-procurement web-site (www.eproc.karnataka.gov.in) as specified above no later than the time and date mentioned in IFT Clause 4.

16.2 The Employer may extend the deadline for submission of tenders by issuing an amendment in accordance with Clause 9.0, in which case all rights and obligations of the Employer and the Tenderers previously subject to the original deadline will then be subject to the new deadline.

17.0 Late Tenders

17.1 The **software** of e-procurement system will not allow the Bidder to upload the documents after expiration of the stipulated date & time of Bid submission. The Bidder shall refer the server time, which will be displayed in the e-procurement portal. Employer will not be responsible for non-receipt of bids on the stipulated date & time prescribed in clause 16, due to Internet Problems, improper uploading or any other related problems. In case of connectivity problems, Tenderer may contact Helpdesk of the e-tender service provider and may also draw the attention of tender inviting authority.

18.0 Modification and Withdrawal of Tenders

18.1 Tenderers may "modify" and "withdraw" their tenders multiple numbers of times, until the deadline for submission of tenders by operating the relevant provision made in e-tendering. If the Tenderer withdraws the tender before the deadline for submission of tenders and later if he is interested to submit the tender once again, may do so within the stipulated date & time as mentioned in Clause 16

18.2 Deleted.

18.3 No Tender may be modified after the deadline for submission of Tenders.

18.4 Withdrawal or modification of a Tender between the deadline for submission of Tenders and the expiration of the original period of Tender validity specified in Clause 12.1 above or as extended pursuant to Clause 12.2 may result in the forfeiture of the earnest money deposit pursuant to Clause 13.

18.5 Deleted

E. TENDER OPENING AND EVALUATION

19.0 Opening of First Cover (Technical Proposal) of Tenders and Evaluation to determine Qualified Tenderers:

19.1 The **Employer** will open the Technical Proposals of all the Tenders received, including modifications made pursuant to Clause 18, in the presence of the Tenderers or their representatives who choose to attend at **11.00 hours** on the date and the place specified in Clause 16. In the event of the specified date of Tender opening being declared a holiday for the Employer, the Tenders will be opened at the appointed time and location on the next working day.

19.2 The Tenderes names, earnest money deposit (amount, format and validity), the submission of updated Pre-qualification information and such other information as the Employer may consider appropriate will be announced by the Employer at the opening.

19.3 The Employer shall prepare minutes of the Tender opening, including the information disclosed to those present in accordance with Sub-Clause 19.2.

19.4 The Price Tenders of all the Tenderers including modifications for price tenders cannot be opened as this is programmed to open later after evaluation of the Technical details of the participating Tenderers.

19.5 The Employer will evaluate and determine whether each tender (a) meets the eligibility criteria defined in ITT Clause 2; (b) is accompanied by the required earnest money deposit as per stipulations in ITT Clause 13 and (c) meets the minimum qualification criteria stipulated in the prequalification documents, to confirm that the minimum qualification requirements are still being met in ITT Clause 3. The Employer will draw out a list of qualified Tenderers.

20.0 Opening of Second Cover of Qualified Tenderers and Evaluation

20.1 The Employer will inform all the Qualified Tenderers the time, date and venue fixed for the opening of the price proposals. The Employer will open the price proposal of Qualified Tenderers at the appointed time and date in the presence of the Tenders or their representatives who choose to attend. In the event of the specified date of Price proposal opening being declared a holiday for the Employer, the price tenders will be opened at the appointed time and location on the next working day.

20.2 The Tenderers' names, the Tender prices, the total amount of each Tender, any discounts, Tender modifications and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. No Tender shall be rejected at Tender opening.

20.3 The Employer shall prepare minutes of the Price Tender opening, including the information disclosed to those present in accordance with Sub-Clause 20.2.

21.0 Process to be confidential

21.1 Information relating to the examination, clarification, evaluation, and comparison of Tenders and recommendations for the award of a contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process until the award to the successful Tenderer has been announced. Any effort by a Tenderer to influence the Employer's processing of Tenders or award decisions may result in the rejection of his Tender.

22.0 Clarifications of Tenders

22.1 To assist in the examination, evaluation, and comparison of Tenders, the Employer may, at his discretion, ask any Tenderer for clarification of his Tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Tender shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Tenders in accordance with Clause 24.

22.2 Subject to sub-clause 22.1, no Tenderer shall contact the Employer on any matter relating to its Tender from the time of the Tender opening to the time the contract is awarded. If the Tenderer wishes to bring additional information to the notice of the Employer, it should do so in writing.

22.3 Any effort by the Tenderer to influence the Employer in the Employer's Tender evaluation, Tender comparison or contract award decisions may result in the rejection of the Tenderers' Tender.

23.0 Examination of Tenders and determination of responsiveness

23.1 Prior **to** the detailed evaluation of Tenders, the Employer will determine whether each Tender; (a) has been properly signed; and; (b) is substantially responsive to the requirements of the Tender documents.

23.2 A substantially responsive Tender is one which conforms to all the terms, conditions, and specifications of the Tender documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Tender documents, the Employer's rights or the Tenderer's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Tenderers presenting substantially responsive Tenders.

23.3 If a Tender is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

24.0 Correction of Errors

24.1 This Clause may not applicable for e-Procurement since Price Proposal will be submitted in electronic format.

25.0 Evaluation and Comparison of Tenders

25.1 The Employer will evaluate and compare only the Tenders determined to be substantially responsive in accordance with Clause 23.

25.2 In evaluating the Tenders, the Employer will determine for each Tender the evaluated Tender Price by adjusting the Tender Price as follows:

(a) making any correction for errors pursuant to Clause 24; and
(b) Employer will determine the lowest evaluated bid based on methodology set forth in Section 3, "Methodology for Price Bid Evaluation".

25.3 The Employer reserves the right to accept or reject any variation and deviation. Variations, deviations, and other factors which are in excess of the requirements of the Tender documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Tender evaluation.

25.4 The estimated effect of the price adjustment conditions under Clause 40 of the Conditions of Contract, during the implementation of the Contract, will not be taken into account in tender Evaluation

25.5 If the tender of the successful Tenderer is seriously unbalanced in relation to the Employer's estimate of the cost of the work to be performed under the contract, the Employer may require the Tenderer to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 29 of ITT be increased at the expense of the successful Tenderer to a level sufficient to protect the Employer against financial loss in the event of default of the successful under the contract.

F. AWARD OF CONTRACT

26.0 Award criteria

26.1 Subject to Clause 27, the Employer may award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender documents and who has offered the **Lowest Evaluated Tender Price**, provided that such Tenderer has been determined to be (a) eligible in accordance with the provisions of Clause 2, and (b) qualified in accordance with the provisions of Clause 3.

27.0 Employer's right to accept any Tender and to reject any or all Tenders

27.1 Notwithstanding Clause 26, the Employer reserves the right to accept or reject any Tender, and to cancel the Tender process and reject all Tenders, at any time prior to the award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the Employer's action.

28.0 Notification of award and signing of Agreement

28.1 The **Tenderer** whose Tender has been accepted will be notified of the award by the Employer prior to expiration of the Tender validity period by cable, telex, e-mail or facsimile confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

28.2 The notification of award will constitute the formation of the Contract, subject only to the furnishing of Security deposit in accordance with the provisions of Clause 29.

28.3 The Agreement will incorporate all agreements between the Employer and the successful Tenderer. It will be kept ready for signature of the successful Tenderer in the office of Employer within 30 days following the notification of award along with the Letter of Acceptance. Within 20 days of receipt, the successful Tenderer will sign the Agreement and deliver it to the Employer.

28.4 Upon the furnishing by the successful Tenderer of the Performance Security, the Employer will promptly notify the other Tenderers that their Tenders have been unsuccessful.

29.0 Security Deposit

- Within Twenty-Eight (28) **days** of receipt of the Letter of Acceptance, the successful Tenderer shall deliver to the Employer a Security deposit in any of the forms given below for an amount equivalent to **5%** of the Works Contract Price plus additional security for unbalanced tenders in accordance with Clause 25.5 of ITT and Clause 44 of the Conditions of Contract. Banker's cheque/Demand draft/Pay Order in favour of Chief Engineer (WWM-P-East), BWSSB payable at Bangalore or
- A bank guarantee in the form given in Section 10; or

29.1 If the security deposit is provided by the successful Tenderer in the form of a Bank Guarantee, it shall be issued either by a Nationalized/Scheduled bank.

29.2 The security deposit if furnished in cash or demand draft can, if requested, be converted to interest bearing securities at the cost of the contractor.

29.3 Failure of the successful Tenderer to comply with the requirements of Sub-Clause 29.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Earnest money deposit.

30.0 Advance Payments and Security:

30.1 The **Employer** will provide an advance payment on the contract price as stipulated in the Conditions of Contract, subject to the maximum amount as stated in the Contract Data.

31.0 Corrupt or Fraudulent practices

31.1 The GOK requires that the Tenderers/Suppliers/Contractors, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, GOK:

(a) will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

(b) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a GOK contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a GOK/GoI/Public undertaking contract.

31.2 Furthermore, Tenderers shall be aware of the provision stated in sub-clause 50.2 of the Conditions of Contract.

SECTION 3: QUALIFICATION INFORMATION AND EVALUATION METHODOLOGY

The information to be filled in by the Tenderer hereunder will be used for purposes of evaluating qualification of tenderer as provided for in Clause 3 of the Instructions to Tenderers. This information will not be incorporated in the Contract.

All individual firms and all partners of a joint venture are requested to complete the information in the format of form given in this section.

FORM-1A

All individual firms and all partners of a joint venture are requested to provide the information in the following format

1.1 **Constitution or legal status of Tenderers** [Attach copy]

Place of Registration _____

[Attach copy]

Principal place of business: _____

Tenderers Information

Bidder's legal name	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	

Attached are copies of the following original documents.

- ❑ 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with Sub clause 2.0 of ITT
- 2. Authorization to represent the firm or JV in accordance with Sub-clause 2.2.3 of ITT
- 3. In case of JV, JV agreement, in accordance with Sub clause 2.2 of ITT.

Note:

The Applicant shall not subcontract more than **30% (Thirty Percent)** of the Value of the Whole of the Works and shall not subcontract O&M Contract.

FORM-1B

JOINT VENTURE AGREEMENT

To:
Chief Engineer (WWW-East)-P
Bangalore Water Supply and Sewerage Board,
2nd floor, Cauvery Bhavan,
K G Road, Bangalore – 560 009,
Karnataka (India**).**

The undersigned of this Declaration of Cooperation are by means of attached Powers of Attorney legally authorized to act with regard to the Bangalore Water Supply and Sewerage Board and Contract Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project)** on behalf of their organizations.

We hereby declare:

1. that we will legalize a Joint Venture Agreement in case that a Contract for Design, Construction, and Commissioning of **20 MLD STP Based on IFAS** with BNR, Tertiary Treatment, Power Generation & Odour Control Units at Koramangala including 7 Years Operation and Maintenance **(Turnkey Contract) is** awarded to our group;

2. that we have nominated _____ [name of the lead partner] as the Lead Partner of the group for the purpose of this Bid;

3. that we have authorized Mr./Ms. _____ [name of the person who is authorized to act as the Representative on behalf of the Joint Venture] to act as the Bidder's Representative in the name and on behalf of our group.

4. that all partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract;

5. that this Joint Venture is an association constituted for the purpose of Execution for Contract Design, Construction, and Commissioning of **20 MLD STP Based on IFAS** with BNR, Tertiary Treatment, Power Generation & Odour Control Units at Koramangala including 7 Years Operation and Maintenance **(Turnkey Contract).**

6. that if the Employer accepts the Bid of this Joint Venture, the Joint Venture shall not be modified in its composition or constitution until the completion of Contract. No part of the works shall be assigned partially/fully to any of the partners till the completion of the projet.

7. that each partner's share of the Work, stated as a percentage of the total contract amount, shall be as follows:

Name of Partner	Share of work (as percentage of the contract amount)
1. Lead Partner	
2. Partner	
Total	**100**

8. the names and positions of the propoposed Joint Venture Representatives and their respective organisations' names and addresses are given below:

Lead Partner:

1.	Name:	Signature:
	Position:	Date:
	Representative of (Organisation's Name and address)	

Partner:

2.	Name:	Signature:
	Position:	Date:
	Representative of (Organisation's Name and address)	

(Lead partner and other partners must put signatures and affix their company seal)

Additional Information for JV

Each member of a JV must fill in this form

JV Information	
Bidder's legal name	
JV Partner's legal name	
JV Partner's country of constitution	
JV Partner's year of constitution	
JV Partner's legal address in country of constitution	
JV Partner's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
Attach copies of the following original documents. ❑ 1. Articles of incorporation or constitution of the legal entity named above, in accordance with Sub clause 2.0 of ITT. ❑ 2. Authorization to represent the firm named above, in accordance with Sub-clause 2.2.3 of ITT.	

1.2 General Construction Experience Record (Refer ITT Sub-Clause 3.1.1)

All firms are requested to complete the information in this form with regard to the Construction Works Experience Contracts. The information supplied should be the annual turnover of the Applicant (or each member of a joint venture), in terms of the total certified payments received for contracts (in INR Crores) for each year for work in progress or completed. **The annual periods should be the completed financial years.**

A brief note on each contract should be appended, describing the nature of the work, duration and amount of contract, managerial arrangements, Employer, and other relevant details.

FORM 2A

General Construction Experience (Refer ITT Sub-Clause 3.1.1.a)

Each Bidder or member of a JV must fill in this form

General Construction Experience				
Starting Month Year	Ending Month Year	Years	Name of Contract Name and Address of Employer Brief Description of the Works Executed by the Tenderer	Role of Tenderer

Average Construction Turnover (Refer ITT Sub-Clause 3.1.1.b)

Each Bidder must fill in this form

Total value of civil engineering construction works executed and payments received in the last five years.

FORM NO.2B

Year	Turnover (Rs. Crore)
2020-21	
2021-22	
2022-23	
2023-24	
2024-25	

Joint Venture Summary

Names of all partners of a joint venture	
1	Partner in charge
2	Partner

Total value of annual construction turnover, in terms of payment received from clients, in Rs. Crore

Annual turnover data (construction only in Rs. Crore)							
Partner		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
1	Partner in charge						
2	Partner						
	Total						

FORM NO.2C

DETAILS OF PARTICIPATION IN THE JOINT VENTURE

Details regarding financial responsibility and participation (percentage share in the total) of each firm in the Joint Venture:

Attach a copy of Joint Venture Agreement (JVA) which should lay down responsibility regarding work and financial arrangements in respect of each of the firms in the Joint Venture (**(Refer ITT Sub-clause 2.2)**

(Indicate responsibility and extent of participation in respect of finance planning, construction equipment, key personnel and execution of the work of the partner in charge of the joint venture and of each of the joint venture partners)

Particular Details	**FIRM A (Partner-in-charge)**	**FIRM B**
Financial		
Planning		
Construction Equipment		
Key Personnel		
Execution of Work (Give details on contribution of each)		

1.3 Particular Construction Experience Record (ref. ITT Sub-clause 3.1.2)

(a) Contracts of Similar Size and Nature (ref. **ITT Sub-clause 3.1.2.a**)

FORM NO.3A

Contract of Similar Size and Nature			
Contract No . . . . . of	Contract Identification		
Award Date		Completion Date	
Role in Contract	❑ Contractor	❑ Management Contractor	❑ JV Member (Lead/Partner)
Total Contract Amount (In INR Crore)			
If partner in a JV specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone/Fax Number E-mail			
Description of the similarity in accordance with Criteria ITT Sub-clause 3.1.2.(a)			
Technology used in STP capacity			
No.of Plants, Cost of each of Works, Year of commissioning.			
Other relevant characteristics/details			

Note: Experience Certificate should be signed by Authority (in position of not below the rank of Executive Engineer)

1.3 Particular Construction Experience Record (ref. ITT Sub-clause 3.1.2.b)

(b) Experience in Design and Execution of STPs (ref. ITT Sub-clause 3.1.2.b(i))

FORM NO.3B

Contract with Similar Key Activities			
Contract No . . . . . of	Contract Identification		
Award Date		Completion Date	
Role in Contract	❑ Contractor	❑ Management Contractor	❑ JV Members (Lead/Partner)
Total Contract Amount in Rs. Crore			
If partner in a JV specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone Number Fax Number E-mail			
Description of the key activities in accordance with Criteria ITT Sub-clause 3.1.2.b (i)			
Treatment Technology			
STP Capacity (MLD), Year of Commissioning			

1.3 Particular Construction Experience Record (ref. ITT Sub-clause 3.1.2.b)

(c) Experience in Biological Nutrient Removal (BNR) (ref. ITT Sub-clause 3.1.2. b(ii))

FORM NO.3C

Contract with Similar Key Activities			
Contract No . . . . . of	Contract Identification		
Award Date		Completion Date	
Role in Contract	❑ Contractor	❑ Management Contractor	❑ JV Member (Lead/Partner)
Total Contract Amount in Rs. Crore			
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone Number Fax Number E-mail			
Description of the key activities in accordance with Criteria ITT Sub-clause 3.1.2.b (ii)			
Capacity and main Treatment used			
Type of BNR technology used			

1.3 Particular Construction Experience Record (ref. ITT Sub-clause 3.1.2)

(d) Experience in Operation and Maintenance (ref. ITT Sub-clause 3.1.2.b (iii))

FORM NO.3F

Contract with Similar Key Activities			
Contract No . . . . . of	Contract Identification		
Award Date		Completion Date	
Role in Contract	❑ Contractor	❑ Management Contractor	❑ JV Member (Lead/Partner)
Total Contract Amount in Rs. Crores			
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone Number Fax Number E-mail			
Description of the key activities in accordance with Criteria ITT Sub-clause 3.1.2.b (iii)			
STP Capacity			
Treatment Used			
O&M Contract Period Plant in Operation			

1.3 Particular Construction Experience Record (ref. ITT Sub-clause 3.1.2)

(e) Experience in Fine Filtration (ref. ITT Sub-clause 3.1.2.b (iv))

FORM NO.3G

Contract with Similar Key Activities			
Contract No . . . . . of	Contract Identification		
Award Date		Completion Date	
Role in Contract	❑ Contractor	❑ Management Contractor	❑ JV Member (Lead/Partner)
Total Contract Amount in Rs Crore			
If partner in a JV or subcontractor, specify participation of total contract amount	Percent of Total	Amount	
Employer's Name Address Telephone Number Fax Number E-mail			
Description of the key activities in accordance with Criteria ITT Sub-clause 3.1.2.b (v)			
SPS Capacity (Average in MLD)			
Type of Pumping Station			
Year of Commissioning			

1.4 Current Contract Commitments / Works in Progress (ref. **ITT Sub-clause 3.1.3.b**)

Tenderer should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

FORM NO.4A

Current Contract Commitments					
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work In INR Crore	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [INR Crore/month)]
1					
2					
3					
4					
5					

In accordance with ITT Sub-Clause 3.1.1. [b], the Applicant shall provide evidence (in a similar manner to the requirements of Sub-Clause 3.1.1. [a]) to substantiate the adequacy of the sources of finance to meet the Applicant's cash flow requirements on the above contracts.

Financial Capabilities (ref. ITT Sub-clause 3.1.3.c)

Each Bidder must fill in this form

FORM NO.4B

	Financial Data for Previous Five (5) Years [INR Crore]				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Information from Balance Sheet					
Total Assets					
Total Liabilities					
Net Worth					
Current Assets					
Current Liabilities					

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

❑ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last five years, as indicated above, complying with the following conditions.

- All such documents reflect the financial situation of the Tenderer and sister or parent companies.
- Historic financial statements must be audited by a certified accountant.
- Historic financial statements must be complete, including all notes to the financial statements.
- Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Sources of financing (ref. ITT Sub-clause 3.1.3.a)

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in ITT 3.1.3.a

FORM NO.4C

Financial Resources		
No.	**Source of financing**	**Amount (Rs.Crore)**
1		
2		
3		

Attach audited financial statements—including, as a minimum, profit and loss account, balance sheet, and explanatory notes—for the period stated in ITT 3.1.3.c (for each partner of a joint venture).

FORM NO.4D

FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF OVERDRAFT/CREDIT FACILITIES

BANK CERTIFICATE

This is to certify that M/s _____ is a reputed company with a good financial standing.

If the contract for the work, namely _____ is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. _____ to meet their working capital requirements for executing the above contract.

-- Sd. -- & Stamp

Name of the Bank

Senior Bank Manager

Address of the Bank

1.5 Litigation History

Each of the partners of a joint venture, shall provide information on any history of litigation or arbitration resulting from contracts executed in the last five years or currently under execution. A separate sheet should be used for each partner of a joint venture.

FORM 5A

Year	Award for or against the applicant	Name of client, cause of litigation, and matter in dispute	Disputed amount current value, (INR Crore)

Providing any false or misleading information, or hiding any information, may result in disqualification of the Tenderer.

1.6 Personnel

Tenderer should provide the names of suitably qualified personnel to meet the requirements specified in Sub section 3.1.4 of ITT. The data on their experience should be supplied using the Form below for each candidate.

FORM 6A: PROPOSED PERSONNEL

1.	**Title of position***
	Name
2.	**Title of position***
	Name
3.	**Title of position***
	Name
4.	**Title of position***
	Name

*As listed in Sub clause 3.1.4 of ITT

FORM 6B: RESUME OF PROPOSED PERSONNEL

Position		
Personnel information	**Name**	**Date of birth**
	Professional qualifications	
Present employment	**Name of employer**	
	Address of employer	
	Telephone	**Contact (manager / personnel officer)**
	Fax	**E-mail**
	Job title	**Years with present employer**

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From	To	Company / Project / Position / Relevant technical and management experience

1.7 Equipment

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Sub section 3.1.5. of ITT. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

FORM 7A

Item of Equipment		
Equipment Information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

1.8 Proposed Subcontractors/Manufacturers for Major Items of Plant and Services

The following Subcontractors and/or manufacturers are proposed for carrying out the item of the facilities indicated. Sub-contractors experience and resources shall not be taken into account in determining the Tenderers compliance with the qualifying criteria. ***However, the bidder shall not subcontract more than 30% (thirty percent) of the value of the whole of the Works.***

FORM 8A

Major Items of Plant and Services	Proposed Subcontractors/Manufacturers	Nationality	Percentage (%) of Works proposed for Subcontract

Note: Subcontractors/manufacturers for the following major items of supply or services must meet the following minimum criteria, herein listed for that item. Failure to comply with this requirement will result in rejection of the subcontractor.

Item No.	Description of Item	Minimum Criteria to be met
1	Supply of equipment	Should be licensed manufacturer or authorized dealer
2	Civil works	Must have executed at least one similar type of works during the last seven years.

In the case of a Tenderer who offers to supply and install major items of supply under the contract that the Tenderer did not manufacture or otherwise produce, the Tenderer shall provide the manufacturer's authorization, showing that the Tenderer has been duly authorized by the manufacturer or producer of the related plant and equipment or component to supply and install that item.

METHODOLOGY FOR PRICE BID EVALUATION

Under Sub-Clause 25.2 of ITT, the following Methodology will be adopted to find the lowest evaluated tender:

(a) Determination/Evaluation of Capital Cost

Total cost of the sewage treatment plant will be evaluated based on technical requirements as well as **price quoted excluding GST** by each bidder.

(b) Determination/Evaluation of O&M Cost of Plant Excluding Energy Cost

The procedure for evaluation of Operation Cost of Plant is as follows,

- The Bidder shall be asked to provide in Technical Bid for the men and materials consumptions such as guaranteed consumption of chemicals.
- The Bidder shall quote for the quantity of chemical and material consumptions as submitted in Technical Schedule-V for the O & M period of seven (7) years considering inflation.

(c) Final Determination of bids

- Computed Cost = Capital Cost excluding GST as per portal (a) + 7 Years O&M Cost of Plant excluding Energy Cost & GST as per portal (b) added together will be considered for comparison to determine the lowest bid.

Technical Proposal (to include the following sections also)

Site Organization

(S*ite organization should contain the organogram of the staff proposed to be deployed in the site for managing the contract. Separate charts shall be included for the design, construction and operation and maintenance works*)

Method Statement for Rehabilitation/Upgradation Works

(Method statement should indicate the approach and methodology to execute each major activities of the project which shall include usage of material, equipment, manpower and other resources. The method statements will indicate the quality assurance and safety procedures envisaged to be followed in the work)

Mobilization Schedule

(Mobilization schedule will indicate the details of initial mobilization of staff, equipment and materials along with the initial works to be undertaken. The number of staff that would be deployed for the initial period of four month to be indicated. The schedule of deployment of design staff for the design work also should be indicated)

Construction Schedule

(The physical and financial progress (cash flow) schedule to be given)

Personnel

(The details of the personnel to be given as per the format given in the document)

Equipment

(The details of the equipment to be provided to be given in the format. Details of ownership, whether hired or own should be mentioned.)

Proposed Subcontractors for Major Items of Plant and Services

(The details of the subcontractors along with their experience in the proposed work to be given)

Time Schedule

(*Separate schedules shall be indicated in the bid for design, construction and Operation and Maintenance*. Various milestone dates to be given in the respective schedules.)

SECTION 4: FORM OF TENDER, LETTER OF ACEPTANCE, NOTICE TO PROCEED WITH THE WORK AND AGREEMENT FORM

FORM OF TENDER

Design, Construction, and Commissioning of **20 MLD STP Based on IFAS** with BNR, Tertiary Treatment, Power Generation & Odour Control Units at Kadugodi Including 7 Years Operation and Maintenance **(Turnkey Contract).**

To: _____

Address: _____
_____

GENTLEMEN,
We offer to Design and Execute the Works described above in accordance with the Conditions of Contract accompanying this Tender for the Contract Price of _____ [in figures]
(_____) [in letters].

This Tender and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any Tender you receive.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We hereby confirm that this Our Proposal complies with tender requirement and Tender complies with the Tender validity and Earnest money deposit required by the Tender documents.

We attach herewith our current income-tax clearance certificate.

Yours faithfully,

Authorized Signature:

Name & Title of Signatory: _____

Name of Tenderer _____

Address: ----------

LETTER OF ACCEPTANCE

Grams : "Water Sup" Bangalore

Phone: 080 – 2294 5106
O/o Chief Engineer (WWM-P-East), Cauvery Bhavan,
Bangalore 560009

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

No. **Date:**

To: _____[name and address of the Contractor]

Dear Sirs,

This is to notify you that your Tender dated _____for Description of the Works: Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project),** No.BWSSB/ ,dtd xx.11.2025 for the Contract Price of INR_____ (_____) [amount in words and figures], as corrected and modified in accordance with the Instructions to Tenderer's is hereby accepted by our Agency.

You are hereby requested to furnish Security deposit plus additional security for unbalanced tenders in terms of Clause 25.5 of ITT, in the form detailed in Clause 29.1 of ITT for an amount of INR.——— within 20 days of the receipt of this letter of acceptance valid up to 30 days from the date of expiry of Defects Liability Period i.e. up to ..... and sign the contract, failing which action as stated in Para 29.4 of ITT will be taken.

Yours faithfully,

Chief Engineer (WWM-P-East)
BWSSB

ISSUE OF NOTICE TO PROCEED WITH THE WORK

Grams : "Water Sup" Bangalore

Phone: 080 – 2294 5106
O/o Chief Engineer (WWM-P-East),
Cauvery Bhavan,
Bangalore 560 009

BANGALORE WATER SUPPLY AND SEWERAGE BOARD

No. **Date:**

To: _____[name and address of the Contractor]

Dear Sirs,

Pursuant to your furnishing the requisite security deposit as stipulated in ITT Clause 29.1 and signing of the contract agreement for the work of Design construction, commissioning of **Design, Construction, Commissioning of 20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control units including 7 years Operation and Maintenance (Turnkey Project).**

No. BWSSB ,dtd: xx.10.2025 a Tender Price of INR_____, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

Chief Engineer (WWM-P-East)
BWSSB

AGREEMENT FORM

Agreement

This agreement, made the _____day of _____20_____, between Engineer-in-Chief, BWSSB (hereinafter called "the Employer") of the one part and_____

_____

_____[name and address of contractor] (hereinafter called "the Contractor") of the other part.

Whereas the Employer is desirous that the Contractor execute work of Design construction, commissioning of **Design, Construction, Commissioning of 20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control units including 7 years Operation and Maintenance (Turnkey Project),** No.BWSSB/ , dtd: xx.10.2025 (hereinafter called "the Works") and the Employer has accepted the Tender by the Contractor for the execution and completion of such Works and the remedying of any defects therein at a contract price of Rupees.....

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
   i) Letter of Acceptance;
   ii) Notice to proceed with the works;
   iv) Contract Data;
   v) Conditions of contract (including Special Conditions of Contract);
   vi) Specifications;
   vii) Bill of Quantities (Price Schedule);
   viii) Drawings;
   iii) Contractor's Tender; and
   ix) Any other document listed in the Contract Data as forming part of the contract.

In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____
Was hereunto affixed in the presence of:
Signed, Sealed and Delivered by the said _____
_____

in the presence of:
Binding Signature of Employer _____

Binding Signature of Contractor _____

SECTION 5: CONDITIONS OF CONTRACT

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CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1 Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Bold letters are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Tender.

Compensation events are those defined in Clause 38 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Employer in accordance with Sub Clause 46.1.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.2 below.

The **Contract Data** defines the documents and other information which comprise the Contract.

The **Contractor** is a person or corporate body whose Tender to carry out the Works has been accepted by the Employer.

The **Contractor's Tender** is the completed Tender document submitted by the Contractor to the Employer.

The **Contract price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

Days are calendar days; **months** are calendar months.

A **Defect** is any part of the Works not completed in accordance with the Contract.

The **Defects liability period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Employer by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Employer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

A **Variation** is an instruction given by the Employer which varies the Works.

The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the Contract Data.

Working Hours is weekly normal working hours for Contractor as mentioned in Contract Data.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Employer will provide instructions clarifying queries about the Conditions of Contract.

2.2 The documents forming the Contract shall be interpreted in the following order of priority:

(1) Contract Agreement

(2) Letter of Acceptance, notice to proceed with the works

(3) Contract Data

(4) Conditions of Contract

(5) Specifications

(6) Drawings

(7) Bill of quantities (Price Schedule)

(8) Contractor's Tender and

(9) Any other document listed in the Contract Data as forming part of the Contract.

3. Law governing contract

3.1 The law governing the Contract is the Laws of India supplanted by the Karnataka Local Acts.

4. Employer's decisions

4.1 Except where otherwise specifically stated, the Employer will decide contractual matters between the Employer and the Contractor.

5. Delegation

5.1 The Employer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act). Language of Communication is as mentioned in Contract data.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Employer but may not assign the Contract without the approval of the Employer in writing. Subcontracting does not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer.

9. Personnel

9.1 The Contractor shall employ the technical personnel (of number and qualifications) as may be stipulated by GOK from time to time during the execution of the work. The technical staff so employed shall be available at site as may be stipulated by the Employer.

9.2 If the Employer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's risks

11.1 The Employer is responsible for the excepted risks which are:

(a) Rebellion, riot commotion or disorder unless solely restricted to employees of the Contractor or his Sub-Contractors arising from the conduct of the Works; or

(b) A cause due solely to the design of the Works, other than the Contractor's design; or

(c) Any operation of the forces of nature (in so far as it occurs on the Site) which an experienced contractor:

(i) Could not have reasonably foreseen; or

(ii) Could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures;

(A) Prevent loss or damage to physical property from occurring by taking appropriate measures or

(B) Insure against such loss or damage

12. Contractor's risks

12.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks are the responsibility of the Contractor.

13. Insurance

13.1 The Contractor shall prior to commencing the works, effect and thereafter maintain insurances, in the joint names of the Employer and the Contractor, (cover from the first working day after the Start Date to the end of Defects Liability Period), in the amounts stated in the Contract Data:

(a) For loss of or damage to the Works, Plants and Materials and the Contractor's equipment;

(b) For liability of both Parties for loss, damage, death and injury to third parties or their property arising out of the Contractor's performance of the Contract including the Contractor's liability for damage to the Employer's property other than the Works and

(c) For liability of both Parties and of any Employer's representative for death and injury to the Contractor's personnel except to the extent that liability arises from the negligence of the Employer, any Employer's representative or their Employees.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Employer for his approval before the Start Date. All such insurance shall provide for compensation to be payable to rectify the loss or damage incurred. All payments received from insurers relating to loss or damage shall be held jointly by the Parties and used for the repair of the loss or damage or as compensation for loss or damage that is not to be repaired.

13.3 If the Contractor fails to effect or keep in force any of the insurances referred to in the previous sub-clauses or fails to provide satisfactory evidence, policies or receipts, the Employer may without prejudice to any other right or remedy, effect insurance for the cover relevant to such default and pay the premiums due and recover the same as a deduction from any other monies due to the Contractor. If no payments are due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Employer.

13.5 Both Parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

14.1 The Contractor, in preparing the tender, shall rely at his own risk on any site investigation reports referred to in the Contract data, supplemented by any information available to the Tenderer.

15. Queries about the Contract Data

15.1 The Employer will clarify queries on the Contract Data.

16. Contractor to construct the Works

16.1 The Contractor shall construct the Works in accordance with the Specification and Drawings.

17. The Works to be completed by the Intended Completion Date

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the program submitted by the Contractor, as updated with the approval of the Employer, and complete them by the Intended Completion Date.

18. Approval by the Employer

18.1 The Contractor shall submit Specification and drawings showing the proposed Temporary & Permanent Works to the Employer, who is to approve them if they comply with the Specifications and Drawings.

18.2 The Contractor shall be responsible for the design of Temporary and Permanent Works

18.3 The Employer's approval shall not alter the Contractor's responsibility for design of the Temporary & Permanent Works.

18.4 The Contractor shall obtain approval of third parties to the design of third parties to the design of the temporary Works where required.

18.5 All Design and Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to review and approval by the Employer before their use.

19. Safety

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Employer of such discoveries and carry out the Employer's instructions for dealing with them.

21. Possession of the Site

21.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

22. Access to the Site

22.1 The Contractor shall allow the Employer and any person authorized by the Employer access to the Site, to any place where work in connection with the Contract is being carried out or is

intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

23. Instructions

23.1 The Contractor shall carry out all instructions of the Employer which comply with the applicable laws where the Site is located.

24. Procedure for resolution of Disputes

24.1 If the Contractor is not satisfied with the decision taken by the Employer, the dispute shall be referred by either party to Arbitration within 30 days of the notification of the Employer's decision.

24.2 If neither party refers the dispute to Arbitration within the above 30 days, the Employer's decision will be final and binding.

24.3 The Arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of Contract.

B. TIME CONTROL

25. Program

25.1 Within the time stated in the Contract Data the Contractor shall submit to the Employer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works.

25.2 The Employer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Employer again at any time. A revised Program is to show the effect of Variations and Compensation Events.

26. Extension of the Intended Completion Date

26.1 The Employer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date.

26.2 The Employer shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Employer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information.

27. Delays ordered by the Employer

27.1 The Employer may instruct the Contractor to delay the start or progress of any activity within the Works.

28. Management meetings

28.1 The Employer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the progress achieved and the plans for remaining work.

28.2 The responsibility of the parties for actions to be taken is to be decided by the Employer either at the management meeting or after the management meeting and stated in writing to be distributed to all who attended the meeting.

C. QUALITY CONTROL

29. Identifying defects

29.1 The Employer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Employer may instruct the Contractor to search for a Defect and to uncover and test any work that the Employer considers may have a Defect

30. Tests

30.1 If the Employer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

31. Correction of Defects

31.1 The Employer shall give notice to the Contractor of any defects before the end of the defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

31.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Employer's notice.

32. Uncorrected defects

32.1 If the Contractor has not corrected a defect within the time specified in the Employer's notice, the Employer will assess the cost of having the defect corrected, and the Contractor will pay this amount.

D. COST CONTROL

33. Bill of Quantities (BOQ)

33.1 The BOQ shall contain items for the design, construction, installation, testing and commissioning of constructed facilities work to be done by the Contractor.

33.2 The BOQ is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the BOQ for each item.

34. Variations

34.1 The Employer shall have power to order the Contractor to do any or all of the following as considered necessary or advisable during the progress of the work by him

(a) Increase or decrease of any item of work included in the Bill of Quantities (BOQ);

(b) Omit any item of work;

(c) Change the character or quality or kind of any item of work;

(d) Change the levels, lines, positions and dimensions of any part of the work;

(e) Execute additional items of work of any kind necessary for the completion of the works; and

(f) Change in any specified sequence, methods or timing of construction of any part of the work.

34.2 The Contractor shall be bound to carry out the work in accordance with any instructions in this connection, which may be given to him in writing by the Employer and such alteration shall not vitiate or invalidate the contract.

34.3 Variations shall not be made by the Contractor without an order in writing by the Employer, provided that no order in writing shall be required for increase or decrease in the quantity of an item appearing in the BOQ so long as the work executed conforms to the approved drawings.

34.4 The Contractor shall promptly request in writing the Employer to confirm verbal orders and if no such confirmation is received within 15 days of request, it shall be deemed to be an order in writing by the Employer.

35. Payments for Variations

35.1 Payment for increase in the quantities of an item in the BOQ up to 25% of that provided in the Bill of Quantities shall be made at the rates quoted by the Contractor.

35.2 For quantities in excess of 125% of the tendered quantity of an item as given in the BOQ, the Contractor shall be paid at the rate entered in or derived from in the Schedule of Rates (applicable for the area of the work and current at the time of award of contract) plus or minus the overall percentage of the original tendered rates over the current Schedule of Rates prevalent at the time of award of contract.

35.3 If there is no rate for the additional, substituted or altered item of the work in the BOQ, efforts would be made to derive the rates from those given in the BOQ or the Schedule of Rates (applicable for the area of the work and current at the time of award of contract) and if found feasible the payment would be made at the derived rate for the item plus or minus the overall percentage of the original tendered rates over the current Schedule of Rates prevalent at the time of award of contract.

35.4 If the rates for additional, substituted or altered item of work cannot be determined either as at 35.1 or 35.2 or 35.3 above, the Contractor shall be requested to submit his quotation for the items supported by analysis of the rate or rates claimed, within 7 days.

35.5 If the Contractor's quotation is determined unreasonable, the Employer may order the Variation and make a change to the Contract Price which shall be based on Employer’s own forecast of the effects of the Variation on the Contractor's costs.

35.6 If the Employer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

35.7 Under no circumstances the Contractor shall suspend the work on the plea of non-settlement of rates for items falling under this Clause.

36. Submission of bills for payment

36.1 The Contractor shall submit to the Employer monthly bills of the value of the work completed less the cumulative amount paid previously.

36.2 The Employer shall check the Contractor's bill and determine the value of the work executed which shall comprise of (i) value of the quantities of the items in the BOQ completed and (ii) valuation of Variations and Compensation Events.

36.3 The Employer may exclude any item paid in a previous bill or reduce the proportion of any item previously paid in the light of later information.

37. Payments

37.1 Payments shall be adjusted for deductions for advance payments, other recoveries in terms of the contract and taxes, at source, as applicable under the law. The Employer shall pay the Contractor the within 60 days of submission of bill. The Contractor shall be liable to pay liquidated damages for shortfall in progress as per milestone set in Works Contract. For Progress beyond the agreed programme, payment is subject to availability of the grants.

37.2 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

38. Compensation Events

38.1 The following are Compensation events unless they are caused by the Contractor:

(a) The Employer does not give access to a part of the Site by the Site Possession Date stated in the Contract Data.

(b) The Employer orders a delay or does not issue drawings, specifications or instructions required for execution of works on time.

(c) The Employer instructs the Contractor to uncover or to carry out additional tests upon work which is then found to have no Defects.

(d) The Employer gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.

(e) The effect on the Contractor of any of the Employer’s Risks.

(f) The Employer unreasonably delays issuing a Certificate of Completion.

(g) Other Compensation Events listed in the Contract Data or mentioned in the Contract.

38.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date is extended. The Employer shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

38.3 As soon as information demonstrating the effect of each Compensation event upon the Contractor's forecast cost has been provided by the Contractor, it is to be assessed by the Employer and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is

deemed unreasonable, the Employer shall adjust the Contract Price based on Employer's own forecast. The Employer will assume that the Contractor will react competently and promptly to the event.

38.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Employer.

39. Tax

39.1 The rates quoted by the Contractor shall be deemed to be exclusive of all taxes (GST) that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

40. Price Adjustment

40.1 Contract price shall be adjusted for increase or decrease in rates and prices of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formulae given in the Contract Data (Refer GOK Order No.FD 59 Pro.Cell 2004, Bengaluru Dated 26th November 2004.

(a) The price Adjustment shall apply for the work done from the date of commencement up to the end of original period of completion or extensions granted by the Employer and shall not apply to work carried out beyond the stipulated period of completion for reasons attributable to the Contractor;

(b) Price Adjustment shall be admissible from the date of opening of tenders (original or extended)

(c) The price adjustment shall be determined during each quarter from the formulae given in Contract Data.

(d) Following expressions and meanings are assigned to the work done during the quarter:

40.2 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

41. Liquidated damages

41.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works and the milestone as stated in the Contract Data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

41.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment of bill.

42. Advance Payments

42.1 The Employer shall make payment to the Contractor of the amounts stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an unconditional

bank guarantee in a form acceptable to the Employer issued by a Nationalized/Scheduled Bank in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on the advance payment.

42.2 The Contractor is to use the advance payment only to pay for Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Employer.

42.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuation of the work done, variations, price adjustments, compensation events or liquidated damages.

43. Securities

43.1 The Security deposit (including additional security for unbalanced tenders) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and type of instrument acceptable to the Employer. The Security deposit shall be valid until a date 30 days from the date of expiry of Defects Liability Period and the additional security for unbalanced tenders shall be valid until a date 30 days from the date of issue of the certificate of completion.

44. Cost of Repairs:

44.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

45. Completion

45.1 The Contractor shall request the Employer to issue a Certificate of Completion of the Works and the Employer will do so upon deciding that the Work is completed.

46. Taking over

46.1 The Employer shall take over the Site and the Works within seven days of issuing a certificate of Completion.

47. Final account

47.1 The Contractor shall supply to the Employer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 90 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer shall issue within 90 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Employer shall decide on the amount payable to the Contractor and make payment within 60 days of receiving the Contractor’s revised account.

48. As-built drawings and /or Operation and Maintenance Manuals

48.1 If "as built" Completion drawings" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

48.2 If the Contractor does not supply the Drawings by the dates stated in the Contract Data, or they do not receive the Employer's approval, the Employer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

49. Termination

49.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

49.2 Fundamental breaches of Contract include, but shall not be limited to the following:

(a) The Contractor stops work for 45 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Employer;

(b) The Employer instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 60 days;

(c) The Contractor becomes bankrupt or goes into liquidation other than for a reconstruction or amalgamation;

(d) A payment due to the Contractor is not paid by the Employer within 90 days of the date of the submission of the Bill by Contractor;

(e) The Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Employer;

(f) The Contractor does not maintain a security which is required;

(g) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined in the Contract data; and

(h) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in the executing the Contract.

For the purpose of this paragraph : "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Borrower, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

49.3 When either party to the Contract gives notice of a breach of contract to the Employer for a cause other than those listed under Sub Clause 49.2 above, the Employer shall decide whether the breach is fundamental or not.

49.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

49.5 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

50. Payment upon Termination

50.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Employer shall prepare bill for the value of the work done less advance payments received up to the date of the bill, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

50.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Employer shall prepare bill for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract, and less taxes due to be deducted at source as per applicable law and make payment accordingly.

51. Property

51.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor’s default.

52. Release from performance

52.1 If the Contract is frustrated by any event entirely outside the control of either the Employer or the Contractor the Employer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement the Conditions of Contract (CC). Whenever there is a conflict, the provisions herein shall prevail over those in the Conditions of Contract (CC). The clause number of the SCC is the corresponding clause number of the CC. ***[In cases of any differences, the provisions contained in these Special Conditions of Contract (SCC) shall take precedence over the provisions of Conditions of Contract (CC).]***

Add the following

Clause 1.1

"**Contract**" means these Conditions of Contract (Contract Conditions and Special Conditions of Contract), the Specifications, the Tender, the Contractor's Proposal, the Schedules, the Letter of Acceptance, the Contract Agreement (if completed) and such further documents as may be expressly incorporated in the Letter of Acceptance or Contract Agreement (if completed). For the purposes of defining the different activities and obligations under the Contract, the Contract will be comprised of two parts, a "**Works Contract**" and an "**O&M Contract**", as defined in the following Sub-paragraphs 1 (a) and 1 (b) below. Such definitions are for convenience only for performance of the contract and shall not impinge on the rights or obligations of either the Employer or the Contractor under the Contract.

1 (a) "**Works Contract**" means that portion of the Contract that relates to the **design, execution, completion, trial run and commissioning of the Works and the remedying of any defects**, but excluding Operation and Maintenance of the facilities for the Operation and Maintenance Period, in accordance with the provisions of the Contract.

2 (b) "**O & M Contract**" means that portion of the Contract that relates to the **Operation and Maintenance of the facilities for the Operation and Maintenance Period**, as defined in the Appendix to Special Conditions of Contract, but excluding the portion of design, execution, completion, trial run and commissioning of the Works and the remedying of any defects, in accordance with the provisions of the Contract.

"**Contractor's Tender"** means the Contractor's signed offer for the works and all other documents, which the contractor submitted therewith (other than these conditions and the Specifications, if so submitted) as included in the Contract.

The word "Tender" is synonymous with "Bid" and their derivatives (bidder / Tenderer, bid / tendered, bidding / tendering, etc.) as well as the words "Tender Documents" with "Bid or Bidding Documents" are synonymous.

Time for Completion of Works" means the time period, starting from the Commencement Date, within which Contractor is required by Contract to complete the Works. The numerical value for Time for Completion of Works is specified in Contract Data.

Operation and Maintenance Period" means the time period during which the Contractor shall be fully responsible for operation and maintenance of the Works, starting from the date of completion of the Works as certified by the Engineer under Clause 61 [*Employer's Taking Over*].

Taking-Over Certificate" means a certificate issued by the Engineer in accordance with the provisions of Clause 61 [*Taking Over*], **when the Works have been completed** in accordance with the Contract.

"**Performance Certificate**" is synonymous with **"Works Contract Completion Certificate"** and means the certificate issued by the Engineer after satisfactory completion of the Works and completion of the Contractor's Works Contract obligations (i.e., after satisfactory correction of all defects) in accordance with the provisions of the Contract.

Final Contract Completion Certificate" means the certificate issued by the Engineer upon satisfactory completion of the Operation and Maintenance responsibilities under Sub-Clause 62.8 [*Completion of Operation and Maintenance*].

Contract Price" means the price as defined in the Contract and includes the adjustments in accordance with the Contract.

For the purposes of determining payments under the Contract and, where applicable, other obligations, the Contract Price shall be subdivided into a "**Works Contract Price**" and "**O &M Contract Price**", as defined in the following Sub paragraphs 2(a) and 2(b), respectively.

The total "**Contract Price**" will be the sum of the Works Contract Price and the O&M Contract Price.

2 (a) "**Works Contract Price**" means that portion of the Contract Price payable to the Contractor for performance of the Works Contract in accordance with the provisions of the Contract. The **Works Contract Price** will be the total of the amounts for carrying out the Works, as set out in Price Schedule under works.

2 (b) "**O&M Contract Price**" means that portion of the Contract Price payable to the Contractor for performance of the O&M Contract in accordance with the provisions of the Contract. The **O&M Contract Price** will be the total amount for operation and maintenance during the O&M period, as set out in Price Schedule, under Operation and Maintenance.

"**Facilities**" means the Works executed and completed by the Contractor after trial run and commissioning, and remedying defects therein in terms of the Contract.

"**Operations and Maintenance**" means performance of any and all tasks and provision of any and all things necessary for the safe and efficient functioning of the Works in compliance with all applicable regulations and the O&M Contract. This includes but is not limited to supply of all labour, equipment, materials, fuel and other consumables, and all other necessary things.

"Price Schedule" means the priced & completed schedules forming part of the tender.

Add after clause 1.1 the following sub clauses

1.2 Scope of Facilities

1.2.1 Unless otherwise expressly limited in the Specifications, the Contractor's obligations cover the provision of all Plant and the performance of all Installation Services required for the design, the manufacture (including procurement, quality assurance, construction, installation, associated civil works, Pre-commissioning and delivery) of the Plant and the installation, completion and commissioning of the Facilities in accordance with the plans, procedures, specifications, drawings, codes and any other documents as specified in the Section, Specifications. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labour, materials, equipment, spare parts (as specified in specification) and accessories; Contractor's Equipment; construction utilities and supplies; temporary materials, structures and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage.

1.2.2 The Contractor shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Completion of the Facilities as if

such work and/or items and materials were expressly mentioned in the Contract.

1.2.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities as per the contract provisions.

Add after clause 5.1 the following sub clauses

5.2 Representatives

5.2.1 The Engineer / Authorized Employer Representative

(a) The Engineer is the person appointed by the Employer hereof and named as such in the Contract data to perform the duties delegated by the Employer. The Employer may from time to time appoint some other person as the Engineer in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay.

(b) The Engineer shall represent and act for the Employer at all times during the performance of the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Engineer, except as herein otherwise provided.

(c) All notices, instructions, information and other communications given by the Contractor to the Employer under the Contract shall be given to the Engineer, except as herein otherwise provided.

5.2.2 Contractor's Representative

5.2.2.1 The Contractor shall appoint the Contractor's Representative and shall request the Employer in writing to approve the person so appointed.

5.2.2.2 The Contractor's Representative shall represent and act for the Contractor at all times during the performance of the Contract and shall give to the Engineer all the Contractor's notices, instructions, information and all other communications under the Contract.

5.2.2.3 All notices, instructions, information and all other communications given by the Employer or the Engineer to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided.

5.2.2. 4 The Contractor shall not revoke the appointment of the Contractor's Representative without the Employer's prior written consent, which shall not be unreasonably withheld. If the Employer consents thereto, the Contractor shall appoint some other person as the Contractor's Representative,

5.2.2.5 The Employer may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Employer, may behave inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations. The Employer shall

provide evidence of the same, whereupon the Contractor shall remove such person from the Facilities.

5.2.2.6 If any representative or person employed by the Contractor is removed, the Contractor shall, where required, promptly appoint a replacement.

5.3 Contractor's Responsibilities

5.3.1 The Contractor shall design, manufacture including associated purchases and/or subcontracting, install and complete the Facilities in accordance with the Contract. When completed, the Facilities should be fit for the purposes for which they are intended as defined in the Contract.

5.3.2 The Contractor confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the Facilities including any data as to boring tests provided by the Employer, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site if access thereto was available and of other data readily available to it relating to the Facilities as of the date twenty-eight (28) days prior to bid submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.

5.3.3 The Contractor shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Employer under SCC Sub-Clause 5.4.2 hereof and that are necessary for the performance of the Contract. However, Contractor shall assist Employer & liaison with the line departments for obtaining all the other permits, approvals and/or licenses that are not the responsibility of the Contractor.

5.3.4 The Contractor shall comply with all laws in force in the country where the Facilities are to be implemented. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel.

5.3.5 The Contractor shall, with due care and diligence, design, engineer, procure, execute test and commission, including operation and maintenance for 10 years, remedy any defects therein accordance with the provisions of the Contract. The Contractor shall provide all

superintendence, labour, materials, Plant, Contractor's Equipment and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

5.3.6 The Contractor shall promptly notify the Employer, of any error, omission, fault or other defect in the design of or Specification for the Works (prepared by the contractor and approved by the Engineer earlier), but which he discovers when reviewing the designs or executing the Works.

5.3.7 The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations and methods of construction. Since the Contract expressly provides that all items of plant shall be designed by the Contractor, he shall be fully responsible for all components of the plant, notwithstanding any approval by the Employer.

5.3.8 The Contractor shall provide all necessary superintendence during the execution of the Plant and as long as thereafter as the Project Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorized representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the construction of plant. Such authorized representative shall receive, on behalf of the Contractor, instructions from the Engineer. If the approval of the representative is withdrawn by the Engineer, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the construction of plant and shall not thereafter employ him again on the assignment in any capacity and shall replace him by another representative approved by the Engineer.

5.3.9 The Contractor shall be responsible for:

(a) The accurate setting-out of the various components of the plant in relation to original points, lines and levels of reference as designed by the contractor and approved by the Engineer.

(b) The correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the plant, and

(c) The provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.

If, any time during the execution of the plant, any error appears in the position, levels, dimensions or alignment of any part of the plant, the Contractor, on being required so to do by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect instructions in writing by the Engineer, in which case the Engineer shall determine an addition to the Contract Price

as per the relevant provisions of the contract and shall notify the Contractor accordingly.

The checking of any setting-out or of any line by the Engineer shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sigh-rails, pegs and other things used in setting-out the Works.

5.3.10 The Contractor shall comply with all applicable environmental laws and regulations in India. The contractor shall (a) establish an operational system for managing environmental impacts, (b) carry out all of the monitoring and mitigation measures required and implement the Environmental Management Plan (EMP). The Contractor shall submit to the Employer monthly reports on the carrying out of such measures." Necessary assistance shall be provided by employer wherever required.

5.3.11 **License for Explosives:** The Contractor should take necessary licenses under the current explosive rules to enable him to manufacture and process the quantity of gunpowder / explosive and perform the blasting as necessary according to prevailing rules.

5.3.12 All personnel, raw material, utilities, lubricants, chemicals catalysts and other material and facilities and works and required to properly carry out the Pre-Commissioning and Guarantee Tests, all in accordance with the Contract Agreement shall be arranged and provided by the Contractor.

5.3.13 The contractor shall be responsible for the continued operation and maintenance of the facilities for a period of Ten (10) years after completion and shall be responsible for conducting the Guarantee Tests(s) for the facilities.

5.4 Employer's Responsibilities

5.4.1 The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way.

5.4.2 The Employer shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which (a) such authorities or undertakings require the Employer to obtain in the Employer's name, (b) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract.

5.4.3 If requested by the Contractor, the Employer shall use its best endeavours to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all local, state or national government authorities or public service undertakings that such authorities or undertakings require the Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be, to obtain.

13. Insurance

Add after 13.5 the following sub clauses

13.6 Contractor shall at its expense take out the following

(a) Cargo Insurance During Transport

Covering loss or damage occurring while in transit from the Contractor's or Subcontractor's works or stores until arrival at the Site, to the Plant (including spare parts therefor) and to the Contractor's Equipment.

(b) Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors, whether or not owned by them, in connection with the execution of the Contract.

(c) Workers' Compensation

In accordance with the statutory requirements applicable in any country where the Contract or any part thereof is executed

Add after 16.1 the following sub clauses

Intellectual Property

16.2 License/Use of Technical Information

16.2.1 For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and non-transferable license (without the right to sub-license) to the Employer under the patents, utility models or other industrial property rights owned by the Contractor or by a third party from whom the Contractor has received the right to grant licenses thereunder, and shall also grant to the Employer a non-exclusive and non-transferable right (without the right to sub-license) to use the know-how and other technical information disclosed to the Employer under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual property right from the Contractor or any third party to the Employer.

16.2.2 The copyright in all drawings, documents and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

Add after 17.1 the following sub clauses

17.2 Time for Commencement and Completion

17.2.1 The Contractor shall commence work on start date as specified in Contract Data for determining Time for Completion as specified in the Contract Agreement.

17.2.2 The Time for Completion of the whole of the Facilities shall be **30 months** including commissioning from the Start Date as described in the Contract Agreement. The whole of the Works, including testing, Trial Run, and commissioning and performance guarantee test shall be

completed within the period specified above. The Taking-Over Certificate will be issued upon successful completion of the Performance guarantee test and rectification of any defects observed during the period

17.2.3 The Contractor shall commence the Operation and Maintenance services immediately after successful commissioning and guarantee tests of the Treatment Plant and taking over by the Employer. The Works will be handed over back to the Contractor for the purpose of Operation and Maintenance. After completion, commissioning and guarantee tests, the contractor shall under take Operation and Maintenance for a period of **Seven (07)** years. This period includes defect liability period.

Add after 18.5 the following sub clauses

18.6 Design and Engineering

18.6.1: Specifications and Drawings

18.6.1.1 The Contractor shall execute the basic and detailed design and the engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good engineering practice.

The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Engineer or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the Contractor by or on behalf of the Employer.

18.6.1.2 The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designated by or on behalf of the Employer, by giving a notice of such disclaimer to the Engineer.

18.6.2 Codes and Standards

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of bid submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied subject to approval by the Employer

18.6.3 Approval/Review of Technical Documents by Engineer

18.6.3.1 The Contractor shall prepare and furnish to the Engineer the documents listed in the Contract Data (List of Documents for Approval or Review) to the Contract Agreement for its approval or review

Any part of the Facilities covered by or related to the documents to be approved by the Engineer shall be executed only after the Engineer's approval thereof.

18.6.3.2 The Engineer shall either return one copy thereof to the Contractor

with its approval endorsed thereon or shall notify the Contractor in writing of its disapproval thereof and the reasons therefore and the modifications that the Engineer proposes.

18.6.3.3 The Engineer shall not disapprove any document, except on the grounds that the document does not comply with the Contract or that it is contrary to good engineering practice. If the Engineer disapproves a document, he shall specify the reasons for his decision.

18.6.3.4 If the Engineer disapproves the document, the Contractor shall modify the document and resubmit it for the Engineer for approval. If the Engineer approves the document subject to modification(s), the Contractor shall make the required modification(s), whereupon the document shall be deemed to have been approved.

18.6.3.5 The Engineer's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Engineer

18.6.4 General Design Obligations

18.6.4.1 "The Contractor shall carry out, and be responsible for, the design of the Works, including any site surveys, subsoil investigations, materials testing, and all other things necessary for proper planning and design."

"The Contractor will be required to establish a design office at Bangalore City, within 28 days from the Commencement date to facilitate preparation and submission of designs, drawings, construction documents, etc., for review and approval of designs by the Engineer. The design office shall preferably be located near the Employer's office to facilitate communications and frequent interactions with the Engineer. The Contractor shall provide full time design staff and continuously maintain the design office until such time as all necessary designs and Construction Documents have been completed, reviewed and approved by the Engineer.

The Contractor will be fully responsible to ensure that its designs, drawings and construction documents satisfy the requirements for constructing Works that are complete and sufficient in all respects.

18.6.5 Contractor's Documents

18.6.5.1 The Contractor shall submit, within 14 days of signing the Agreement, the proposed "Submission and Anticipated Approval Programme" of all necessary Construction Documents for approval by the Engineer. Such Program shall be developed in order to ensure availability of all construction documents on site in a timely manner essential for systematic and professional management of all construction works. The Engineer will scrutinize, modify if required

and approve such proposed Program, in consultation with the Contractor, within 14 days of submission by the Contractor. If the Engineer does not give its approval or objection within the stated period, the Approval Program shall be deemed to be accepted. Nevertheless, any approval by the Engineer, or failure to object to the proposed Approval Program, shall not relieve the Contractor of any of its obligations or responsibility under the Contract. Construction shall not commence until the Contractor receives from the Engineer approval of the Construction Documents relevant to the design and construction of such parts; provided always that if the Engineer fails to give his ruling at the end of 28 days, despite the Contractor's written reminder at the end of the 21 days "review period", then the Contractor may proceed with the construction as though approval had been given. If any delay occurs as a result of delays in approval/decisions beyond 28 days by the Engineer, such delay shall not be attributable to the Contractor."

18.6.6 Technical Standards & Regulations

18.6.6.1 Unless otherwise stated, the design, the Contractor's Documents, the execution and the completed Works shall comply with the Country's technical standards, building, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements, applicable to the Works, or defined by the applicable Laws.

All these Laws shall, in respect of the Works and each Section, be those prevailing when the Commissioning Certificate is issued in accordance with tender requirement. References in the Contract to published standards shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise.

If changed or new applicable standards come into force in the Country after the Base Date, the Contractor shall give Notice to the Employer's Representative and (if appropriate) submit proposals for compliance. In the event that:

(a) the Employer's Representative determines that compliance is required; and
(b) the proposals for compliance constitute a variation,
then the Employer's Representative shall initiate a Variation in accordance with Clause 35 [*Payments for variations*].
"In respect of technical specifications and standards, any National or International Standards which promise to confer equal or better quality than the standards specified will also be acceptable."

Add after 19.1 the following sub clauses

19.2 Care of Facilities

19.2.1 The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of the Facilities pursuant to SCC Clause 25.8 or, where the Contract provides for Completion of the Facilities in parts, until the date of Completion of the relevant part, and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible for any loss or damage to the Facilities caused by the Contractor or its Subcontractors in the course of any work carried out. Notwithstanding the foregoing, the Contractor shall not be liable for any loss or damage to the Facilities or that part thereof caused by reason of any of the matters specified or referred to in paragraphs (a) and (b) of SCC Sub-Clauses 19.2.2 .

19.2.2 If any loss or damage occurs to the Facilities or any part thereof or to the Contractor's temporary facilities by reason of

(a) insofar as they relate to the country where the Site is located, nuclear reaction, nuclear radiation, radioactive contamination, pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced contractor could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, insofar as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of insurance, including War Risks and Political Risks,; or

(b) any use or occupation by the Employer or any third party other than a Subcontractor, authorized by the Employer of any part of the Facilities; or

19.2.3 The Contractor shall be liable for any loss of or damage to any Contractor's Equipment, or any other property of the Contractor used or intended to be used for purposes of the Facilities, except (i) as mentioned in SCC Sub-Clause 19.2.2 with respect to the Contractor's temporary facilities, and (ii) where such loss or damage arises by reason of any of the matters specified in SCC Sub-Clauses 19.2.2 (b).

19.3. Loss of or Damage to Property; Accident or Injury to Workers; Indemnification

19.3.1 Subject to SCC Sub-Clause 19.3.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Facilities whether accepted or not, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents.

19.3.2 If any proceedings are brought or any claim is made against the Employer that might subject the Contractor to liability under SCC Sub-Clause 19.3.1, the Employer shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defence of any such proceedings or claim.

The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

19.3.3 The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from any liability for loss of or damage to property of the Employer, other than the Facilities not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under CC Clause 13, provided that such fire, explosion or other perils were not caused by any act or failure of the Contractor.

19.3.4 The party entitled to the benefit of an indemnity under this CC Clause 13 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the party fails to take such measures, the other party's liabilities shall be correspondingly reduced.

24. **Procedure for resolution of Disputes, Replace the clause as**

24. Procedure for resolution of Disputes and Claims

Add after 24.3 the following sub clauses

24.4.Contractor's Claims

24.4.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall submit a notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following

provisions of this Sub-Clause shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

(a) This fully detailed claim shall be considered as interim;

(b) The Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and

(c) The Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 45 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Engineer shall agree with the Contractor or estimate: (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with SCC Clause 26.3, and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of

time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

In the event that the Contractor and the Employer cannot agree on any matter relating to a claim, either party may refer the matter to the Dispute Board pursuant to CC 24 hereof.

Add after 25.2 the following sub clauses

25.3. **Work Programme**

25.3.1 Contractor's Organization

The Contractor shall supply to the Employer and the Engineer a chart showing the proposed organization to be established by the Contractor for carrying out work on the Facilities within twenty-one (21) days of the Start Date. The chart shall include the identities of the key personnel and the curriculum vitae of such key personnel to be employed shall be supplied together with the chart. The Contractor shall promptly inform the Employer and the Engineer in writing of any revision or alteration of such an organization chart.

25.3.2 Programme of Performance

Within twenty-eight (28) days after the Start Date, the Contractor shall submit to the Engineer a detailed programme of performance of the Contract, made in a form acceptable to the Engineer and showing the sequence in which it proposes to design, manufacture, transport, assemble, install and pre-commission the Facilities, as well as the date by which the Contractor reasonably requires that the Employer shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the programme and to achieve Completion, Commissioning and Acceptance of the Facilities in accordance with the Contract. The programme so submitted by the Contractor shall be in accordance with the Time Schedule included in the Contract Agreement and any other dates and periods specified in the Contract. The Contractor shall update and revise the programme as and when appropriate or when required by the Engineer, but without modification in the Times for Completion and any extension granted in accordance with Conditions of contract (CC) Clause 26, and shall submit all such revisions to the Engineer.

25.3.3 Progress Report

The Contractor shall monitor progress of all the activities specified in the programme referred to above, and supply a progress report to the Engineer every month.

The progress report shall be in a form acceptable to the Engineer and shall indicate: (a) percentage completion achieved compared with the planned percentage completion for each activity; and (b) where any activity is behind the programme, giving comments and likely consequences and stating the corrective action being taken.

25.3.4 Progress of Performance

If at any time the Contractor's actual progress falls behind the programme referred to above, or it becomes apparent that it will so fall behind, the Contractor shall, at the request of the Employer or the Engineer, prepare and submit to the Engineer a revised programme, taking into account the prevailing circumstances, and shall notify the Engineer of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under SCC Sub-Clause 17.2, or any extended period as may otherwise be agreed upon between the Employer and the Contractor.

25.3.5 Procedures

The Contract shall be executed in accordance with the Contract Documents including the procedures given in the Forms and Procedures of the Specifications.

The Contractor may execute the Contract in accordance with its own standard project execution plans and procedures to the extent that they do not conflict with the provisions contained in the Contract.

25.4. Procurement

25.4.1 Materials

The Contractor shall procure and transport all materials in an expeditious and orderly manner to the Site.

25.4.3 Transportation

25.4..3.1 The Contractor shall at its own risk and expense transport all the materials and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances.

25.4..3.2 Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the materials and the Contractor's Equipment.

25.4..3.3 Upon dispatch of each shipment of materials and the Contractor's Equipment, the Contractor shall notify the Employer by telex, cable, facsimile or electronic means, of the description of the materials and of the Contractor's Equipment, the point and means of dispatch, and the estimated time and point of arrival in the country where the Site is located, if applicable, and at the Site. The Contractor shall furnish the Employer with relevant shipping documents to be agreed upon between the parties.

25.4.3.4 The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the materials and the Contractor's Equipment to the Site. The Employer shall use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Employer from and against any claim for damage to roads, bridges or

any other traffic facilities that may be caused by the transport of the materials and the Contractor's Equipment to the Site.

25.4.4 Customs Clearance

The Contractor shall, at its own expense, handle all imported materials and Contractor's Equipment at the point(s) of import and shall handle any formalities for customs clearance

25.5. Installation

25.5.1 **Setting Out/Supervision**

25.5.1.1 Bench Mark

(a) The Contractor shall be responsible for the true and proper setting-out of the Facilities in relation to bench marks, reference marks and lines provided to it in writing by *or on behalf of* the Employer.

(b) If, at any time during the progress of installation of the Facilities, any error shall appear in the position, level or alignment of the Facilities, the Contractor shall forthwith notify the Engineer of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Engineer. If such error is based on incorrect data provided in writing by *or on behalf of* the Employer, the expense of rectifying the same shall be borne by the Employer.

25.5.1.2 Contractor's Supervision

The Contractor shall give or provide all necessary superintendence during the installation of the Facilities, and the Construction Manager or his deputy shall be constantly on the Site to provide full-time superintendence of the installation. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.

25.5.2 Labour

25.5.2.1 Engagement of Staff and Labour

(a) Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.

(b) The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labour that has the necessary skills.

(c) The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labour and personnel to be employed on the Site into the country where the Site is located. The Employer will, if requested by the Contractor, use his best endeavours in a timely

and expeditious manner to assist the Contractor in obtaining any local, state, and national or government permission required for bringing in the Contractor's personnel.

(d) The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to the place where they were recruited or to their domicile. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.

25.5.2.2 Persons in the Service of Employer

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.

25.5.2.3 Labour Laws

(a) The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

(b) The Contractor shall at all times during the progress of the Contract use its best endeavours to prevent any unlawful, riotous or disorderly conduct or behaviour by or amongst its employees and the labour of its Subcontractors.

(c) The Contractor shall, in all dealings with its labour and the labour of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labour.

25.5.2.4 Rates of Wages and Conditions of labour

(a) The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.

(b) The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages and allowances as are

chargeable under the Laws for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

25.5.2.5 Working Hours

(a) No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the SCC, unless:
   (i) otherwise stated in the Contract,
   (ii) the Engineer gives consent, or
   (iii) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.

(b) If and when the Contractor considers it necessary to carry out work at night or on public holidays so as to meet the Time for Completion and requests the Engineer's consent thereto, the Engineer shall not unreasonably withhold such consent.

(c) This Sub-Clause shall not apply to any work which is customarily carried out by rotary or double-shifts.

25.5.2.6 Facilities for Staff and labour

(a) Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.

(b) The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

25.5.2.7 Health and Safety

(a) The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

(b) The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout

the performance of the Contract, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

(c) The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

25.5.2.8 Funeral Arrangements

In the event of the death of any of the Contractor's personnel or accompanying members of their families, the Contractor shall be responsible for making the appropriate arrangements for their return or burial, unless otherwise specified in the SCC.

25.5.2.9 Records of Contractor's Personnel

The Contractor shall keep accurate records of the Contractor's personnel, including the number of each class of Contractor's Personnel on the Site and the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarised on a monthly basis in a form approved by the Engineer and shall be available for inspection by the Engineer until the Contractor has completed all work.

25.5.2.10 Supply of Foodstuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

25.5.2.11 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

25.5.2.12 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

25.5.2.13 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal by Contractor's Personnel.

25.5.2.14 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's

Personnel to do so.

25.5.2.15 Prohibition of All Forms of Forced or Compulsory labour

The contractor shall not employ "forced or compulsory labour" in any form. "Forced or compulsory labour" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

25.5.2.16 Prohibition of Harmful Child labour

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

25.5.3 Contractor's Equipment

25.5.3.1 All Contractor's Equipment brought by the Contractor onto the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without the Engineer's consent that such Contractor's Equipment is no longer required for the execution of the Contract.

25.5.3.2 Unless otherwise specified in the Contract, upon completion of the Facilities, the Contractor shall remove from the Site all Equipment brought by the Contractor onto the Site and any surplus materials remaining thereon.

25.5.3.3 The Employer will, if requested, use its best endeavours to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.

25.5.4 Site Regulations and Safety

The Employer and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply therewith. The Contractor shall prepare and submit to the Employer, with a copy to the Engineer, proposed Site regulations for the Employer's approval, which approval shall not be unreasonably withheld.

Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Facilities, gate control, sanitation, medical care, and fire prevention.

25.5.5 Opportunities for Other Contractors

25.5.5.1 The Contractor shall, upon written request from the Employer or the Engineer, give all reasonable opportunities for carrying out the work to any other contractors employed by the Employer on or near the Site.

25.5.5.2 If the Contractor, upon written request from the Employer or the Engineer, makes available to other contractors any roads or ways the

maintenance for which the Contractor is responsible, permits the use by such other contractors of the Contractor's Equipment, or provides any other service of whatsoever nature for such other contractors, the Employer shall fully compensate the Contractor for any loss or damage caused or occasioned by such other contractors in respect of any such use or service, and shall pay to the Contractor reasonable remuneration for the use of such equipment or the provision of such services.

25.5.5.3 The Contractor shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other contractors. The Engineer shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors and the workers of the Employer in regard to their work.

25.5.5.4 The Contractor shall notify the Engineer promptly of any defects in the other contractors' work that come to its notice, and that could affect the Contractor's work. The Engineer shall determine the corrective measures, if any, required to rectify the situation after inspection of the Facilities. Decisions made by the Engineer shall be binding on the Contractor.

25.5.6 Emergency Work

If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work.

If the Contractor is unable or unwilling to do such work immediately, the Employer may do or cause such work to be done as the Employer may determine necessary in order to prevent damage to the Facilities. In such event the Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefore. If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer. Otherwise, the cost of such remedial work shall be borne by the Employer.

25.5.7 **Site Clearance**

25.5.7.1 Site Clearance in Course of Performance

In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.

25.5.7.2 Clearance of Site after Completion

After Completion of all parts of the Facilities, the Contractor shall

clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site and Facilities in a clean and safe condition.

25.5.8 Watching and Lighting

The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the Facilities, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

25.6. Test and Inspection

25.6.1 The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and any part of the Facilities as are specified in the Contract.

25.6.2 The Employer and the Engineer or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the Employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

25.6.3 Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Engineer. The Contractor shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Employer and the Engineer or their designated representatives to attend the test and/or inspection.

25.6.4 The Contractor shall provide the Engineer with a certified report of the results of any such test and/or inspection.

If the Employer or Engineer or their designated representatives fails to attend the test and/or inspection, or if it is agreed between the parties that such persons shall not do so, then the Contractor may proceed with the test and/or inspection in the absence of such persons, and may provide the Engineer with a certified report of the results thereof.

25.6.5 The Engineer may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of work on the Facilities and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Completion and the other obligations so affected.

25.6.6 If any Plant or any part of the Facilities fails to pass any test and/or inspection, the Contractor shall either rectify or replace such Plant or part of the Facilities and shall repeat the test and/or inspection upon giving a notice under SCC Sub-Clause 25.6.3.

25.6.7 If any dispute or difference of opinion shall arise between the parties in connection with or arising out of the test and/or inspection of the Plant or part of the Facilities that cannot be settled between the parties within a reasonable

period of time, it may be referred to a Dispute Board.

25.6.8 The Contractor shall afford the Employer and the Engineer, at the Employer's expense, access at any reasonable time to any place where the Plant are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Engineer shall give the Contractor a reasonable prior notice.

25.6.9 The Contractor agrees that neither the execution of a test and/or inspection of Plant or any part of the Facilities, nor the attendance by the Employer or the Engineer, nor the issue of any test certificate pursuant to SCC Sub-Clause 25.6.4, shall release the Contractor from any other responsibilities under the Contract.

25.6.10 No part of the Facilities or foundations shall be covered up on the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Engineer whenever any such parts of the Facilities or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof shall be subject to the requirements of the Contract.

25.6.11 The Contractor shall uncover any part of the Facilities or foundations, or shall make openings in or through the same as the Engineer may from time to time require at the Site, and shall reinstate and make good such part or parts.
If any parts of the Facilities or foundations have been covered up at the Site after compliance with the requirement of SCC Sub-Clause 25.6.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Employer, and the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.

25.7 Third Party Inspection and Testing:

25.7.1 The Employer will undertake third party inspections and testing for all works and any civil structure or material or work as may be applicable and as desired by the Engineer. The Contractor shall be wholly responsible to make his own arrangements for carrying out the required tests. The Contractor shall be responsible to obtain permission for and provide all facilities to Employer for carrying out such inspections or testing as may be required. The Third Party Inspection charges and all the other costs for such independent inspection and testing shall be borne by the contractor.

25.7.2 A mutually agreed quality assurance plan with minimum requirements as per Indian Standards will be developed which provides for inspection and certification by the third party inspection at specified times.

25.7.3 No material shall be delivered to the site without formal inspection or testing unless otherwise waived in writing by the Engineer with a certificate issued by the contractor, which is endorsed by the Engineer that the item confirms to the requirement of contract in all respects.

25.7.4 The Employer or his authorized representative may make inspections at any of the manufacturing or shipping points at any time in addition to the schedule agreed with a prior notice of at least 2 weeks at the cost of Employer. However, during such inspection, if it is found that any of the items are not being manufactured or shipped in accordance with the specifications, the contractor shall bear all expenses including fees incurred by the employer in respect of such inspection.

25.7.5 The contractor shall perform or make arrangements for all tests when requested by the Employer.

25.7.6 The Contractor shall agree with the Engineer on the time and place for the inspection of any materials or plant. The Engineer shall give the contractor not less than 24 hours notice of his intention to carry out inspection or to attend the tests.

25.7.7 If at the time and place agreed in accordance with as mentioned in the clause 25.7.4 and 25.7.6, the materials or Plant if, as a result of the inspection or testing referred to in this Clause, the Engineer determines that the materials or plant are defective or otherwise not in accordance with the contract, he may reject the materials or plant and shall notify the contractor there of immediately. The notice shall state the Engineer's observations with reasons. The Contractor shall then promptly make good the defect or replace the same. It the Engineer so requests, the tests of such material or plant shall be made or repeated under the same terms and conditions. All costs incurred by the Engineer for the inspection of the tests shall be determined by the Engineer and shall be recoverable form the contractor and may be deducted from any money's due that the Contractor and the Engineer shall notify the Contractor accordingly.

25.7.8 Any inspection carried out by the Engineer shall not relieve the contractor of his obligations under the contract.

25.8. Completion of the Facilities

25.8.1 As soon as the Facilities or any part thereof has, in the opinion of the Contractor, been completed operationally and structurally and put in a tight and clean condition as specified in the Specifications, excluding minor items not materially affecting the operation or safety of the Facilities, the Contractor shall so notify the Employer in writing under SCC 62. The tests on completion shall be carried out as given below and as per SCC sub clause 62.

25.8.2 The arrangement of all the required personnel, material and facilities, etc. for the purpose of Pre-commissioning of the facilities or any part thereof shall be done by the contractor.

25.8.3 The Contractor shall commence Pre-commissioning of the Facilities or the relevant part thereof in preparation for Commissioning. The conduct of the activities of Pre-commissioning shall be done by the contractor.

25.8.4 As soon as all works in respect of Pre-commissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof is ready for

Commissioning, the Contractor shall so notify the Engineer in writing.

25.8.5 The Engineer shall, within twenty one (21) days after receipt of the Contractor's notice under SCC Sub-Clause 25.8.4, either issue a Completion Certificate, stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's notice under SCC Sub-Clause 25.8.4, or notify the Contractor in writing of any defects and/or deficiencies.

If the Engineer notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in SCC Sub-Clause 25.8.4.

If the Engineer is satisfied that the Facilities or that part thereof have reached Completion, the Engineer shall, within fourteen (14) days after receipt of the Contractor's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's repeated notice.

If the Engineer is not so satisfied, then he/she shall notify the Contractor in writing of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

25.8.6 As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Employer will undertake such completion and deduct the costs thereof from any monies owing to the Contractor.

25.8.7 The contractor shall be responsible for Operation and Maintenance of the plant for a period of ten years after completion of the works and commissioning of the facilities and during that period, the contractor shall be responsible for the care and custody of the facilities or the relevant part thereof, together with the risk of loss or damage thereto

25.9 Commissioning and Operational Acceptance

25.9.1 Commissioning

25.9.1.1 Commissioning of the Facilities or any part thereof shall be commenced by the Contractor immediately after issue of the Completion Certificate by the Engineer, pursuant to SCC Sub-Clause 25.8.5.

25.9.2 Guarantee Test

25.9.2.1 Subject to SCC Sub-Clause 25.9.5, the Guarantee Test and repeats thereof shall be conducted by the Contractor during Commissioning of the Facilities or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Contract Agreement.

25.9.2.2 If for reasons not attributable to the Contractor, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion specified in the SCC or any other period agreed upon by the Employer and the Contractor, the Contractor shall be deemed to have fulfilled its

obligations with respect to the Functional Guarantees, and SCC Sub-Clauses 43.4.2 and 43.4.3 shall not apply. The Guarantee Test of the Facilities shall be successfully completed within the date of Completion

25.9.3 Operational Acceptance

25.9.3.1 Subject to SCC Sub-Clause 25.9.4 below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when

(a) the Guarantee Test has been successfully completed and the Functional Guarantees are met; or

(b) the Guarantee Test has not been successfully completed or has not been carried out for reasons not attributable to the Contractor within the period from the date of Completion specified in the SCC or any other agreed upon period as specified in SCC Sub-Clause 25..9.2.2 above; or

(c) the Contractor has paid the liquidated damages specified in Contract Data; and

(d) any minor items mentioned in SCC Sub-Clause 25.8.6 hereof relevant to the Facilities or that part thereof have been completed.

25.9.3.2 At any time after any of the events set out in SCC Sub-Clause 25.9.3.1 have occurred, the Contractor may give a notice to the Engineer requesting the issue of an Operational Acceptance Certificate in the form provided in the Specifications in respect of the Facilities or the part thereof specified in such notice as of the date of such notice.

25.9.3.3 The Engineer shall, after consultation with the Employer, and within twenty eight (28) days after receipt of the Contractor's notice, issue an Operational Acceptance Certificate.

25.9.4 Partial Acceptance

25.9.4.1 Not applicable.

25.9.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Engineer shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.

25.9.5 Delayed Pre-commissioning and/or Guarantee Test

25.9.5.1 In the event that the Contractor is unable to proceed with the Pre-commissioning of the Facilities pursuant to SCC Sub-Clause 25.8.3, or with the Guarantee Test pursuant to Sub-Clause SCC 25.9.2, for reasons attributable to the Employer either on account of non-availability of other facilities under the responsibilities of other contractor(s), or for reasons beyond the Employer's control, the provisions leading to Operational Acceptance, and Contractor's

obligations regarding Defect Liability Period, pursuant to SCC Sub-Clause 44.2, Functional Guarantee, pursuant to SCC Clause 43.4, and Care of Facilities shall not apply. In this case, the following provisions shall apply.

25.9.5.2 When the Contractor is notified by the Engineer that he will be unable to proceed with the activities and obligations pursuant to above Sub-Clause 25.9.5.1, the Contractor shall be entitled to the following:

(a) the Time of Completion shall be extended for the period of suspension without imposition of liquidated damages pursuant to SCC Sub-Clause 26.2;

(b) the expenses towards the above security and extension of other securities under the contract, of which validity needs to be extended, shall be reimbursed to the Contractor by the Employer;

25.5.3 In the event that the period of suspension under above Sub-Clause 25.9.5.1 actually exceeds two hundred and seventy (270) days, the Employer and Contractor shall mutually agree to any additional compensation payable to the Contractor.

25.5.4 When the Contractor is notified by the Engineer that the plant is ready for Pre-commissioning, the Contractor shall proceed without delay in performing all the specified activities and obligations under the contract.

25.10. Completion Time Guarantee

25.10.1 The Contractor guarantees that it shall attain Completion of the Facilities within the Time for Completion specified in the SCC Sub-Clause 17.2, or within such extended time to which the Contractor shall be entitled under CC Clause 26 hereof.

25.10..2If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under CC Clause 26, the Contractor shall pay to the Employer liquidated damages in the amount specified in the Contract Data as a percentage rate of the Contract Price or the relevant part thereof.

Such payment shall completely satisfy the Contractor's obligation to attain Completion of the Facilities or the relevant part thereof within the Time for Completion or any extension thereof under CC Clause 26. The Contractor shall have no further liability whatsoever to the Employer in respect thereof.

However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Contractor under the Contract.

Save for liquidated damages payable under this CC Sub-Clause 25.10..2, the failure by the Contractor to attain any milestone or other act, matter or thing by any date specified in the Contract Data & Specifications to the Contract Agreement and/or other programme of work prepared pursuant to SCC Sub-

Clause 25.3.2 shall not render the Contractor liable for any loss or damage thereby suffered by the Employer

26 : Extension of the Intended Completion Date, Replace the clause as:

26.1 Extension of the Intended Completion Date and Change in Contract Elements

Add after 26.2 the following sub clauses

26.3 Extension of Time for Completion

26.3.1 The Time(s) for Completion specified in the SCC shall be extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following:

(a) any Change in the Facilities as provided in SCC Clause 34.1

(e) any default or breach of the Contract by the Employer, or any activity, act or omission of the Employer, or the Engineer, or any other contractors employed by the Employer or

(f) any other matter specifically mentioned in the Contract

By such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contractor.

26.3.2 Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Engineer a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Employer and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Employer's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to a Dispute Board, pursuant to CC 24.

26.3.3 The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

In all cases where the Contractor has given a notice of a claim for an extension of time under SCC 26.3.2, the Contractor shall consult with the Engineer in order to determine the steps (if any) which can be taken to overcome or minimize the actual or anticipated delay. The Contractor shall there after comply with all reasonable instructions which the Engineer shall give in order to minimize such delay. If compliance with such instructions shall cause the Contractor to incur extra costs and the Contractor is entitled to an extension of time under SCC 26.3.1, the amount of such extra costs shall be added to the Contract Price.

33 Replace as

33 Price Schedule

33.1 Replace the clause as

33.1 The Price Schedule shall contain items for the supply, design, construction, installation, testing, and commissioning, defects liability period, Operation & Maintenance work and defects Liability period as outlined in the contract to be done by the Contractor.

33.2 Replace the clause as

33.2 Terms of Payment

33.2.1 The Contract Price shall be paid as specified in Appendix 1, Contract Data of the Contract Agreement and SCC 37.3, which also outlines the procedures to be followed in making application for and processing payments.

33.2.2 No payment made by the Employer herein shall be deemed to constitute acceptance by the Employer of the Facilities or any part(s) thereof.

33.2.3 The Contract Price shall be adjusted in accordance with the provisions of Contract Data (Price Escalation)

Add the following clauses after 33.2

33.3

33.3 The Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract

34.1 : Replace the clause as

34.1. Change in the Facilities:

34.1.1 <u>Introducing a Change</u>

34.1.1.1 Subject to SCC Sub-Clauses 34.1.2.5 and 34.1.2.7, the Employer shall have the right to propose, and subsequently require, that the Engineer order the Contractor from time to time during the performance of the Contract to make any change, modification, addition or deletion to, in or from the Facilities hereinafter called "Change", provided that such Change falls within the general scope of the Facilities and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Facilities and the technical compatibility of the Change envisaged with the nature of the Facilities as specified in the Contract.

34.1.1.2 The Contractor may from time to time during its performance of the Contract propose to the Employer with a copy to the Engineer, any Change that the Contractor considers necessary or desirable to improve the quality, efficiency or safety of the Facilities. The Employer may at its discretion approve or reject any Change proposed by the Contractor, provided that the Employer shall approve any Change proposed by the Contractor to ensure the safety of the Facilities.

34.1.1.3 Notwithstanding SCC Sub-Clauses 34.1.1.1 and 34.1.1.2, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed

to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.

34.1.1.4 The procedure on how to proceed with and execute Changes is specified in SCC Sub-Clauses 34.1.2 and 34.1.3.

34.1.2 Changes Originating from Employer

34.1.2.1 If the Employer proposes a Change pursuant to SCC Sub-Clause 34.1.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor to prepare and furnish to the Engineer as soon as reasonably practicable a "Change Proposal," which shall include the following:

(a) brief description of the Change
(b) effect on the Time for Completion
(c) estimated cost of the Change
(d) effect on Functional Guarantees (if any)
(e) effect on the Facilities
(f) effect on any other provisions of the Contract.

34.1.2.2 Prior to preparing and submitting the "Change Proposal," the Contractor shall submit to the Engineer an "Estimate for Change Proposal," which shall be an estimate of the cost of preparing and submitting the Change Proposal.

Upon receipt of the Contractor's Estimate for Change Proposal, the Employer shall do one of the following:

(a) accept the Contractor's estimate with instructions to the Contractor to proceed with the preparation of the Change Proposal
(b) advise the Contractor of any part of its Estimate for Change Proposal that is unacceptable and request the Contractor to review its estimate
(c) advise the Contractor that the Employer does not intend to proceed with the Change.

34.1.2.3 Upon receipt of the Employer's instruction to proceed under SCC Sub-Clause 34.1.2.2 (a), the Contractor shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with SCC Sub-Clause 34.1.2.1.

34.1.2.4 The pricing of any Change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. If such rates and prices are inequitable, the parties thereto shall agree on specific rates for the valuation of the Change.

34.1.2.5 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance therewith and with all other Change Orders that have already become binding upon the Contractor under this SCC Clause 34.1 would be to increase or decrease the Contract Price as originally set forth in the Contract Agreement by more than fifteen percent (15%), the Contractor may

give a written notice of objection thereto prior to furnishing the Change Proposal as aforesaid. If the Employer accepts the Contractor's objection, the Employer shall withdraw the proposed Change and shall notify the Contractor in writing thereof.

The Contractor's failure to so object shall neither affect its right to object to any subsequent requested Changes or Change Orders herein, nor affect its right to take into account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Contractor represents.

34.1.2.6 Upon receipt of the Change Proposal, the Employer and the Contractor shall mutually agree upon all matters therein contained. Within fourteen (14) days after such agreement, the Employer shall, if it intends to proceed with the Change, issue the Contractor with a Change Order.

If the Employer is unable to reach a decision within fourteen (14) days, it shall notify the Contractor with details of when the Contractor can expect a decision.

If the Employer decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Contractor accordingly. Under such circumstances, the Contractor shall be entitled to reimbursement of all costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Contractor in its Estimate for Change Proposal submitted in accordance with SCC Sub-Clause 34.1.2.2.

34.1.2.7 If the Employer and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Employer may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order."

Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The parties shall thereafter attempt to reach agreement on the outstanding issues under the Change Proposal.

If the parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Dispute Board in accordance with the provisions of CC 24.

34.1.3 <u>Changes Originating from Contractor</u>

34.1.3.1 If the Contractor proposes a Change pursuant to SCC Sub-Clause 34.1.1.2 the Contractor shall submit to the Engineer a written "Application for Change Proposal," giving reasons for the proposed Change and including the information specified in SCC Sub-Clause 34.1.2.1.

Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in SCC Sub-Clauses 34.1.2.6 and 34.1.2.7. However, should the Employer choose not to proceed, the Contractor shall not be entitled to recover the costs of preparing the Application for Change Proposal.

Clause 34.3 Deleted

Add after 34.4 the following sub clauses

Clause 34.5 Any quantities which may be set out in the Price Schedule are only indicative quantities and are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfillment of his obligations under the Contract. The Contractor is responsible to assess the exact requirements and quantities for all items for the purpose of quoting his rates, and no variation in rates will be allowed on account of any variation in the indicative quantities.

Clause 35.1 Deleted
Clause 35.2 Deleted
Clause 35.3 Deleted
Clause 35.4 Deleted

36.2 : Replace the clause as 36.2: The Employer shall check the Contractor's bill and determine the value of the work executed which shall comprise of (i) value of work completed and (ii) valuation of Variations and Compensation Events

Add after 37.2 the following sub clauses

Clause 37.3

(a) Payment for the Works shall be made on a lump sum under major work categories as follow:

(i) Design, Civil works, installation, testing, commissioning of mechanical, electrical and instrumentation & control equipment and other works required for the different components in accordance with the payment units as set out in the Price Schedule and/or as proposed by the Contractor and approved by the Employer's Representative ;

(ii) Plant and equipment supplied including supply of all electro-mechanical, electrical and instrumentation equipment & other works, mandatory spare parts, etc., for the different components according to the payment units as set out in the Price Schedule and/or as proposed by the Contractor and approved by the Employer's Representative; and

(iii) Operation and maintenance of the constructed facilities after completion and acceptance of the Works.

Selection of any of the recommended spare parts will be solely at the Employer's option, and payment for such spare parts, if any, will be made at the quoted unit rates.

(b) The Contractor shall pay all the duties and taxes in consequence of his obligations under the Contract

37.4 Interim Payment Certificate for Works

The Contractor shall submit a statement in three copies to the Employer's Representative after the end of each month in a form approved by the Employer's Representative, showing the amounts to which the Contractor considers himself to be entitled together with supporting documents which shall include the detailed report of progress during the month by submitting progress report. ***In case of supplied plant and equipment, inspection and testing clearance certificates shall also be enclosed as support documents***.

The statement shall include the following item,

(a) The estimated contract value, at base rates and prices, of the Construction Documents produced and the Works (including variations) executed up to the end of the month.

37.5 Interim Payment Certificate for Operation and Maintenance

The Contractor shall submit a statement in three copies to the Employer's Representative after the end of each month, in a form approved by the Employer's Representative, showing the amounts to which the Contractor considers himself to be entitled together with supporting documents. The Statement shall include the following items as applicable:

(a) the estimated contract value of the operation and maintenance services of the facilities up to the end of the month;

37.6 Interim Valuation

'Prior to commencing construction of the Permanent Works, the Contractor shall submit a Bill of Principal Quantities of the Permanent Works" including provision for construction, installation, testing, trial run and commissioning (referred to in this Sub-Clause as "the BPQPW") together with such supporting information and calculations as the Employer's Representative may reasonably require. The BPQPW shall include the anticipated final quantities of the principal items of Permanent Works, which shall have been priced using all-in rates such that the total amount equals the Works Contract Price. The BPQPW shall not contain priced items for design (other than as may be specified in the Schedule of Prices) or for Temporary Works; the value of each element of such work, and of any other work elements not described in the BPQPW, shall each be included in the rates for Permanent Works to be constructed after such element is carried out. The BPQPW shall be subject to the approval of the Employer's Representative, which may at any time be withdrawn, and shall be without prejudice to the final amount due under the Contract. The BPQPW shall be revised and reissued if it appears at any time before Taking-Over that it will not fully represent the Permanent Works when complete.

During the Time for Completion, the contract value shall not exceed the amount calculated from the current BPQPW, based on the quantities of Permanent Works which have been constructed in accordance with the Contract. The Contractor's interim statement shall be in the same form as that of the current BPQPW and shall be accompanied by the Contractor's signed statement that the current BPQPW attached thereto (including anticipated final quantities) and the as-constructed quantities are all correct; each such statement shall also be

	accompanied by a Construction Certificate, signed by the Contractor's Representative, certifying that the part of the Works constructed to date complies with the Contract. However, the Contractor may propose such lesser amount as seems reasonable, supported with appropriate calculations on a similar basis to the procedure described in this Clause.
37.7 Procedure for Interim Valuations	The above procedures notwithstanding, interim valuations for the purposes of determining payments to be made to the Contractor by the Employer will be made on a progressive basis, subject to approval by the Employer's Representative and the conditions summarized in Contract Data, Appendix 1. The designation "P" means progressive monthly payments up to the limits indicated, based on progress made by the Contractor. The designation "LS" means that a lump sum payment will be made upon successful completion of the activity described.
38.1(b) Replace the clause as	38.1 (b) The Employer orders a delay or does not approve drawings, specifications or instructions required for the execution of the works on time
43. Securities, Replace the clause as	43. Securities and Guarantees
Add after 43.1 the following sub clauses	
43.2 Security Deposit	43.2 After successful commissioning and guarantee tests of the Treatment Plant and taking over by the Employer, within 14 days the Contractor shall submit to the Employer security deposit for the O&M Contract in the form of an unconditional Bank Guarantee in the amount as stated in the Contract Data, payable to the Employer who is responsible for the O&M Contract. Such guarantee shall conform to the requirements set forth in the preceding two paragraphs, and shall be valid up to 30 days beyond expiry of the Operation and Maintenance Period." The Security deposit for the Operation and Maintenance Period will be released to the Contractor within 14 days of the issue of the Final Contract Completion Certificate following completion of Operation and Maintenance. Prior to making a claim under the Security Deposit, the Employer shall, in every case, notify the Contractor stating the nature of the default for which the claim is to be made."
43.3 Clearance of Site	43.3 Upon receiving the Taking over Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the site.
43.4. Functional Guarantees	43.4.1 The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified Section 7, Specifications (Functional Guarantees) to the Contract Agreement, subject to and upon the conditions therein specified.

43.4.2 If, for reasons attributable to the Contractor, the minimum level of the Functional Guarantees specified in the Section 7, Specifications (Functional Guarantees) to the Contract Agreement are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications and/or additions to the Plant or any part thereof as may be necessary to meet at least the minimum level of such Guarantees. The Contractor shall notify the Employer upon completion of the necessary changes, modifications and/or additions, and shall request the Employer to repeat the Guarantee Test until the minimum level of the Guarantees has been met. If the Contractor eventually fails to meet the minimum level of Functional Guarantees, the Employer may consider termination of the Contract.

43.4.3 If, for reasons attributable to the Contractor, the Functional Guarantees specified in the Section 7, Specifications (Functional Guarantees) to the Contract Agreement are not attained either in whole or in part, but the minimum level of the Functional Guarantees specified in the Section 7, Specifications to the Contract Agreement is met, the Contractor shall, at the Contractor's option, either

(a) make such changes, modifications and/or additions to the Facilities or any part thereof that are necessary to attain the Functional Guarantees at its cost and expense, and shall request the Employer to repeat the Guarantee Test or

(b) Pay liquidated damages to the Employer in respect of the failure to meet the Functional Guarantees in accordance with the provisions in the Contract Data, Appendix 6 (Functional Guarantees) to the Contract Agreement.

43.4.4 The payment of liquidated damages under SCC Sub-Clause 43.4.3, up to the limitation of liability specified in the Contract Data, Appendix 6 (Functional Guarantees) to the Contract Agreement, shall completely satisfy the Contractor's guarantees under SCC Sub-Clause 43.4.3, and the Contractor shall have no further liability whatsoever to the Employer in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Engineer shall issue the Operational Acceptance Certificate for the Facilities or any part thereof in respect of which the liquidated damages have been so paid.

43.5. Patent Indemnity

43.5.1 The Contractor shall, subject to the Employer's compliance with SCC Sub-Clause 43.5.2, indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Employer may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract by reason of: (a) the installation of the Facilities

by the Contractor or the use of the Facilities in the country where the Site is located; and (b) the sale of the products produced by the Facilities in any country.

Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract Agreement.

43.5.2 If any proceedings are brought or any claim is made against the Employer arising out of the matters referred to in SCC Sub-Clause 43.5.1, the Employer shall promptly give the Contractor a notice thereof, and the Contractor may at its own expense and in the Employer's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Contractor fails to notify the Employer within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Employer shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Employer within the twenty-eight (28) day period, the Employer shall make no admission that may be prejudicial to the defence of any such proceedings or claim.

The Employer shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.

43.5.3 The Employer shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Contractor may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Employer.

43.6. Limitation of Liability

43.6.1 Except in cases of criminal negligence or wilful misconduct,

(a) the Contractor shall not be liable to the Employer, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and

(b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed a multiple of the Contract Price specified in the SCC or, if a multiple is not so

specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.

Add after 44.1 the following sub clauses add the following

44.2 Defects Liability

44.2.1 The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant supplied and of the work executed

44.2.2 The Defect Liability Period shall be one year from the date of Operational Acceptance of the Facilities.

If during the Defect Liability Period any defect found in the design, engineering, materials and workmanship of the Plant supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Employer regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good as the Contractor shall determine at its discretion, such defect as well as any damage to the Facilities caused by such defect.

44.2.3 The Employer shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect any such defect.

44.2.4 The Employer shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this SCC Clause 44.2.

The Contractor may, with the consent of the Employer, remove from the Site any Plant or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

44.2.5 If the repair, replacement or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Employer may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, whereupon the Contractor shall carry out such tests.

If such part fails the tests, the Contractor shall carry out further repair, replacement or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Employer and the Contractor.

44.2.6 If the Contractor fails to commence the work necessary to remedy such defect or any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Employer may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the Employer in

connection therewith shall be paid to the Employer by the Contractor or may be deducted by the Employer from any monies due the Contractor or claimed under the Security Deposit.

44.2.7 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons.

44.2.8 Except as provided in SCC Clauses 44.2, the Contractor shall be under no liability whatsoever and howsoever arising, and whether under the Contract or at law, in respect of defects in the Facilities or any part thereof, the Plant, design or engineering or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, criminal or wilful action of the Contractor.

Add after 45.1 the following sub clause

45.2 Performance Certificate	Performance of the Contractor's obligations shall not be considered to have been completed. Until the Employer has issued the performance Certificate to the Contractor, starting the date on which the contractor completed his obligations under the contract. The Employer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Liability Period, or as soon thereafter as the contractor has supplied all the contractor's documents and completed and tested all the works, including remedying any defects. Only the performance certificate shall be deemed to constitute acceptance of the works.

53. Labour

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Employer, deliver to the Employer a return in detail, in such form and at such intervals as the Employer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Employer may require.

54. Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations

or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, Employer shall have the right to deduct any money due to the Contractor including his amount of security deposit. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

55. Protection of Environment

The contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation. During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

56. Arbitration (Clause 24)

56.1 The procedure for arbitration shall be as follows:

(a) In case of dispute or difference arising between the Employer and the Contractor relating to any matter arising out of or connected with this agreement it shall be settled in accordance with the Arbitration and Conciliation Act 1996. The disputes or differences shall be referred to the Arbitrators. The Arbitrators shall be appointed by agreement between the parties; failing such agreement, by the Appointing Authority as in Contract Data

(b) Arbitration proceedings shall be held at Bangalore, Karnataka, India

(c) The cost and expenses of arbitration proceedings will be paid as determined by the Arbitrator. However the expenses incurred by each party in connection with the preparation, presentation, etc., shall be borne by each party itself.

(d) Performance under the contract shall continue during the arbitration proceedings and payments due the Contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.

57. Contract Agreement

The costs of stamp duties and similar charges imposed by the law shall be borne by the Contractor.

"Not signing the Contract Agreement for any reason whatsoever shall not affect the contract entered into between the Contractor and the Employer by the Letter of Tender and the Letter of Acceptance issued by them respectively".

58.0 Staff, Labour and Equipment

58.1 Engagement of Staff and Labour

Except as otherwise stated in the Specifications, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.

58.2 Rates of Wages And Conditions of Labour

The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions, which are not lower than the general level of wages, and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.

58.3 Persons in the Services of Others

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel

58.4 Labour Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

58.5 Working Hours

No work shall be carried out on the Site on locally recognized days of rest, or outside normal working hours, unless:

(a) Otherwise stated in the Contract,

(b) The Employer gives consent, or

(c) The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Employer.

58.6 Facilities for Staff & Labour

Except as otherwise in the Specifications, the contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specifications.

The Contractor shall not permit any of the Contractor's Personal to maintain any temporary or permanent living quitters within the structures forming part of the Permanent Work.

58.7 Health and Safety

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Employee's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirement and for the prevention of epidemics.

The Contractor shall appoint an accident prevention officer at the site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to

exercise this responsibility and authority.

The Contractor shall send, to the Employer, detail of ay accident as soon as practicable after its occurrence. The Contractor shall maintain records and make report concerning health, safety and welfare of person and damage to property, as the Employer may reasonably.

58.8 Contractor's Superintendence

Throughout the design and execution of the Works and as long thereafter as is necessary o fulfill the Contractor's obligations, the Contractor Shall provide all necessary superintendence to plan, arrange, direct, mange, inspect and test the work

58.9 Contractor's Personnel

The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Employer may require the Contractor to including the Contractor's Representative if applicable, who

(a) Persists in any misconduct or lack of care,
(b) Carries out duties incompetently or negligently
© Fall to conform with any previsions of contractor, or
(d) Persists in any conduct, which is prejudicial to safety, health, or the protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

58.10 Records of contractor's personnel and Equipment

The Contractor shall submit, to the Employer, details showing the number class of Contractor's Personal and of each type of Contractor's Equipment on the site. Detail shall be submitted each calendar month in a form approved by the Employer, until the Contractor has completed all work which is known to be outstanding at the completion date in the taking Over Certificate for the Works.

58.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precaution to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of person and property on and near the Site.

58.12 Contractor's Equipment

"Unless otherwise stated in the Specifications, the Contractor shall provide all Contractor's Equipment necessary to fully and satisfactorily complete the Works Contract and the O&M of the facilities"

"The Contractor shall submit, within 14 days of signing the Contract Agreement, the proposed Deployment Program for all necessary Equipment, Plant, and Machinery to be used for construction, for approval by the Employer's Representative. Such Deployment Program shall be developed using normally available commercial project management software and shall show equipment, plant, and machinery at micro level detail, along with Bar charts, essential for systematic and professional management of all construction works. The Employer's Representative will either approve the submittal or provide comments thereon to the Contractor within 14 days of submission by the Contractor. The Employer's Representative's, approval, disapproval, comments, or failure to provide any of these to the Contractor, shall in no way relieve the Contractor of any of its obligations or responsibilities under the Contract."

58.13 Electricity and Water

The Contractor shall be responsible for provision of all power, water, and other services he may require for performance of the Works Contract.

For performance of Tests on Completion and the O&M Contract: Provision of electricity during Tests on Completion and during the Operation and Maintenance Period shall be the responsibility of the Employer.

59.0 Plant Materials and Workmanship

59.1 Manner of Execution

The contractor shall carry out the manufacture of plant, the production and manufacture of Materials, and all other execution of the Works:

(a) In the manner (if any) specified in the Contract,

(b) In a proper workmanlike and careful manner, in accordance with recognized good practices, and

(c) With properly equipment facilities

59.2 Samples

The Contractor shall submit sample to the Employer, for review in accordance with the procedures specified in the Contract and at the Contractor's cost. Each sample shall be labeled as origin and intended use in the works.

59.3 Inspection

The Employer's Personnel shall at all reasonable time:

(a) have full access to all part of the site and to all places from which natural Materials are being obtained and

(b) During production, manufacture and construction (at site and to the extent specified in the Contract, elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

In respect of the work which Employer's Personal are entitled to examine, inspect, measure and/ or test, the Contractor shall give notice to the Employer whenever any such work is ready and before it is covered up, put out of sight, or packaged for storage of transport. The Employer shall then either carry out the examination inspection, measurement or testing without unreasonable delay or promptly give notice to the Contractor that the Employer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Employer, uncover the work and thereafter reinstate and make good all at the Contractor's Cost.

59.4 Testing

The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumable, instruments, labour, materials and suitably qualified and experienced staff, as are necessary to carry out the specified test efficiently. The Contractor shall agree, with the Employer, the time and place for the specified testing of any plant, Materials and other parts of the works.

The Contractor shall promptly forward to the Employer duly certified reports of the tests. When the specified test has been passed, the Employer shall endorse the

Contractor's test certificate, or issue a certificate to him to that effect.

59.5 Rejection

If as result of an examination, inspection ,measurement or testing, any Plant Material, design or workmanship is found to be defective or otherwise not in accordance with the Contractor, the Employer may reject the Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejection item complies with the Contract.

If the Employer require this Plant, Material, design or workmanship to be retested. The test shall be repeated under the same term and condition. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall pay these costs to the Employer.

59.6 Remedial Work

Notwithstanding any previous test or certification, the Employer may instruct the Contractor to:

(a) remove from the site and replace any plant or Material which is not in accordance with the Contract.

(b) remove and re-execute any other work which is not in accordance with the Contract, and

(c) execute any work, which is urgently required for the safety of the Works. Whether because of an accident unforeseeable event or other.

If the Contractor fail to comply with any such instruction, the Employer shall be entitled to employee and pay other person to carry out the work. Except to the extent the Contractor would have been entitled to payment for the work, the Contractor shall subject to pay to the Employer all costs arising from this failure.

59.7 Ownership of Plant & Materials

Each item of plant and material shall, to the extent consistent with the Laws of the Country become the property of the Employer , at whichever is earlier of the following items, free from liens and other encumbrances:

(a) When it is delivered to the Site;

(b) When the Contractor is entitled to payment of value of the Plant and Material.

The Contractor shall not be entitled to payment for Plant and Materials which are not in compliance with the Specifications or any other terms or requirements of this Contract.

59.8 Royalties

Unless otherwise stated in the Specifications, and in accordance with the prevailing rules and rates specified by the Government of Karnataka the Contractor shall pay all applicable royalties, rents, and other payments to the relevant parties for:

(a) all Equipment, Plant, and Materials used in the Works, and

(b) the disposal of material from demolitions and excavations and of other surplus materials (whether natural or manmade), except to the extent that disposal areas within the site are specified in the Contract and as per the prevailing rules and rates specified by the Government of Karnataka.

60.0 Tests on Completion

60.1 Contractor's Obligations

The contractor shall carry out the Tests on Completion in accordance with clause and Sub-clause 60.4 (Testing) of this section after providing the required

documents.

The contractor shall give to the Employer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such days as the Employer shall instruct.
Unless otherwise stated in the contract, the tests on Completion shall be carried out in the following sequences.

(a) Pre-commissioning tests, which shall include the appropriate inspections and ('Dry "or "Wet") functional tests to demonstrate that each item of plant can safely under- take the next stage,
(b) Commissioning tests, which shall include the specified operational tests demonstrate that the works or section can be operated safety and as specified, under all available operating conditions and
(c) Trial operation, which shall demonstrate that the woks or section perform reliably and in accordance with the Contract.
During trial operation, when the works are operating under stable conditions, the contractor shall give notice to the Employer that the Works are ready for any other Tests on Completion, including performance tests to demonstrate whether the Woks conform with the criteria specified in the Specifications and with the Performance Guarantees.

Trial operation shall not constitute a taking-over unless otherwise stated the Particular- conditions, any product produced by the Works during trial operation shall be the property of the Employer.

In considering the results appropriate allowance shall be the Works by the Employer characteristics of the Works. Section, have passed each of the Tests on Completion, made for the Effect of any use of on the performance or other As soon as the Works, or a of the Tests on completion described in Sub-paragraph (a), (b) or (c) the contractor shall submit a certified report of the Results of these tests to the Employer.

60.2 Delayed Tests

If the tests on Completion are being unduly delayed by the Contractor, the Employer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The contractor shall carry out the tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Employer.
If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's personnel may proceed with the Tests at the risk and cost of the Contractor. If the following conditions apply:
(a) the Works, or a Section, fail to pass any or all of the Tests on Completion;
(b) the relevant sum payable as damages for such failure is stated (or its method of calculation is defined) in the Appendix to Special Conditions of Contract, and;

(c) the Contractor pays such relevant damages to the Employer;

These tests on completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the tests shall be accepted as accurate.

60.3 Retesting If the works, or a section, fail to pass the tests on completion and the Employer or the Contractor may require the failed tests, and tests on completion on any related work, to be repeated under the same terms and conditions

60.4 Failure to Pass Tests on Completion In the event that the Works fail to pass any or all of the Tests on Completion as defined in Specifications, the Employer will levy Damages, based on the extent or magnitude of such failure, in accordance with the formulation provided in the Appendix to Special Conditions of Contract then the Works or such Section shall be deemed to have passed such Tests on Completion.

However, the total amount of Delay Damages for Works and Damages for failure to pass the Tests on Completion as defined in this Sub-Clause shall not exceed the maximum amount of 'Delay Damages for Works' stated in the **Contract Data**

61.0 Employer's Taking Over

61.1 Taking Over of Works and Sections The Works shall be taken over by the Employer when :

(i) the works have been completed in accordance with the Contract, and

(ii) A Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this sub-Clause.

The Contractor may apply by notice to the Employer for a Taking- Over Certificate not earlier than 14 days before the works will, in the Contractors opinion, be complete and ready for taking over.

The Employer shall, within 28 days after receiving the Contractor's application:

(a) issue the Taking-Over Certificate to the Contractor, starting the date on which the Works or Sections were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or;

(b) Reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this sub-clause.

Add the following clauses

62.0 Operation and Maintenance

62.1 General Requirements The Contractor shall comply with the Operation Management System as provided for in the Contract and any revisions thereof which are agreed during the Contract Period. The Contractor shall follow the requirements of the Operation and Maintenance Plan and the Operation and Maintenance Manuals. No significant alteration to such arrangements and methods shall be made without the prior approval of the Engineer.

The Plant operators and maintenance personnel shall have the appropriate experience and qualifications to perform the Operation and Maintenance service as required under the Contract. The names, with details of their qualifications and experience, of all operation and maintenance personnel shall be submitted to the Employer for approval, and no such personnel shall be engaged prior to receiving such approval.

62.2 Commencement of Operation and Maintenance

The Operation and Maintenance shall not commence until the Works have been completed in accordance with the Contract and Taking-Over Certificate has been issued in terms of the Contract.

Should the Works Contract Completion Certificate or any notice attached or pertaining thereto, contain requirements or restrictions over and above those in the Contract, the Contractor shall comply with such requirements and/or restrictions.

The Contractor shall thereafter provide the Operation and Maintenance service in compliance with the Operation Management System and in accordance with As-Built Documents and the Operation and Maintenance Manuals.

If the Contractor wishes to modify a document which has previously been submitted and approved, the Contractor shall immediately notify the Engineer, and shall subsequently submit revised document(s) to the Engineer for review accompanied by a written explanation of the need for such modification.

The Contractor shall not implement any proposed modification until such modification has been reviewed by the Engineer, and consent to proceed has been given in writing. However, any such approval or consent, or any review (under this Sub-Clause or otherwise), shall not relieve the Contractor from any obligation or responsibility.

62.3 Delivery of Raw Materials

The Contractor shall be responsible for the supply and delivery to the Site (or other designated place) of the chemicals, fuels, consumables and other such items specified in the Employer's Requirements. The Contractor shall be responsible that all such items are fit for purpose and comply with the requirements of the Contract in respect of quality, purpose and function.

In the event that any such item or product is not delivered in accordance with the agreed delivery programme or deviates from the specified quality, and such delay or deviation causes the Contractor to suffer additional cost, the Contractor shall not be entitled for any extra costs which he has incurred.

62.4 Training

The Contractor shall carry out the training of Employer's Personnel in the Operation and Maintenance of the Facilities to the extent specified in the Employer's Requirements.

The programme and scheduling of the training shall be agreed with the Employer, and the Contractor shall provide experienced training staff, and all training materials as stated in the Employer's Requirements. The Employer shall be responsible for nominating and selecting suitable personnel for training.

62.5 Failure to Maintain Compliance with

In the event that the Contractor fails to achieve and maintain compliance with the treated water quality requirements specified in the Contract, the Contractor and Employer shall jointly establish the cause of such failure.

Specified treated Water Quality

(a) If the cause of the failure lies with the Employer or any of its agent or representatives, then, after consultation with the Contractor, the Employer shall give written instruction to the Contractor of the measures which the Employer requires the Contractor to take.

If the Contractor suffers any additional Cost as a result of the failure or the remedial measures specified by the Employer, the Employer, subject to Sub- shall pay the Contractor his Cost plus reasonable profit.

(b) If the cause of the failure lies with the Contractor then, after due consultation with the Employer, the Contractor shall take all steps necessary to achieve and maintain compliance with the treated water quality requirements specified in the Contract.

If the Employer suffers any loss as a result of the failure or the measures taken by the Contractor, the Contractor shall pay the Employer performance damages as stipulated in **Contract Data.**

Unless otherwise stated in the Contract, if the failure continues for a period of more than 84 days, and the Contractor is unable to achieve compliance with the treated water quality requirements specified in the Contract, the Employer may:

(i) either continue with the Operation and Maintenance with the deduction in the Contractor's monthly payment as stated in Contract Data or

(ii) give the Contractor 56 days' notice in writing and terminate the Contract. In such an event, the Employer shall be free to continue the Operation and Maintenance himself or by others.

62.6 Joint Inspection Prior to Contract Completion

Not less than one year prior to the end of the Operation and Maintenance Period, the Engineer and the Contractor shall carry out a joint inspection of the Works and within 30 days of the completion of the joint inspection, the Contractor shall submit a report on the condition of the Works identifying maintenance works (excluding routine maintenance), correction of defects, replacements, and other works required to be carried out to satisfy the requirements of the Operation and Maintenance Plan.

The Contractor shall submit a programme for carrying out such works for approval/modification by the Engineer and shall execute the approved/modified programme over the remainder of the Operation and Maintenance Period.

Following receipt of the Contractor's report, the Engineer may, throughout the remainder of the Operation and Maintenance Period, instruct the Contractor to carry out all or part of the works identified in the Contractor's report.

Upon satisfactory execution of the programme, the Contractor shall commence the Tests Prior to Contract Completion in accordance with Sub-Clause 62.7 [*Procedure for Tests Prior to Contract Completion*].

62.7 Procedure for Tests Prior to Contract Completion

The Tests Prior to Contract Completion shall be carried out by the Contractor. The Contractor shall provide all necessary labour, materials, electricity, fuel, and water. The Contractor shall undertake and complete any required remedial works that may be required to pass all the Tests. The Tests Prior to Contract Completion shall be carried out in accordance with the Specifications. The duration of test period shall not be less than sixty (60) days.

Tests Prior to Contract Completion shall be carried out towards the end of the Operation and Maintenance Period. The Engineer shall give to the Contractor 21 days' notice of the date after which the Tests Prior to Contract Completion shall be carried out. Unless otherwise agreed, such Tests shall be commenced within 14 days after this date.

The results of the Tests Prior to Contract Completion shall be compiled and evaluated by the Engineer and the Contractor. The Contractor shall make results of any tests, inspections, or monitoring available to the Engineer within 7 days of their receipt by the Contractor. Any effect on the results of the Tests Prior to Contract Completion which can reasonably be shown to be due to prior use of the Works by the Contractor during the Operation and Maintenance Period shall be taken into account in assessing such results.

As soon as the Contractor has successfully completed the Tests Prior to Contract Completion, the Contractor shall notify the Engineer that the Works are ready for final inspection. Upon the Engineer completing the final inspection and being satisfied that the Contractor has satisfied the requirements of the Tests Prior to Contract Completion, the Engineer shall notify the Employer and the Contractor prior to the issue of the Final Contract Completion Certificate on completion of the Operation and Maintenance Period.

62.8 Completion of Operation and Maintenance

Unless the Parties have mutually agreed to extend the Operation and Maintenance Period, the obligation of the Contractor to operate and maintain the Facilities under the Contract shall cease at the end of the period stated in the Contract as the Operation and Maintenance Period.

Notwithstanding the foregoing, other services required to be performed by the Contractor must be completed before the Contractor will be entitled to receive the Final Contract Completion Certificate on Completion of the Operation and Maintenance Period in accordance with this Contract.

Pre-conditions which must be fulfilled by the Contractor before the Final Contract Completion Certificate on Completion of the Operation and Maintenance Period will be issued are:

(a) Inspection in accordance with Sub-Clause 62.6 [*Joint Inspection Prior to Contract Completion*],

(b) Testing in accordance with Sub-Clause 62.7 [*Procedure for Tests Prior to Completion*],

(c) Updating Operation and Maintenance manuals and providing performance records and data in accordance with Contract, and

(d) Remedying defects found during inspection in accordance with Sub-Clause 62.6 [*Joint Inspection Prior to Contract Completion*].

63.0 Provisional Sum

Provisional Sums: Provisional sum is meant for executing any foreseen/unforeseen work and can be utilized fully, partly or nil as per the specific requirement during the course of execution shall be reimbursed at per actual.

SECTION 6: CONTRACT DATA

The following documents are also part of the Contract

	Clause Reference of CC & SCC
The schedule of Operating & Maintenance Manuals	[48&62]
The Methodology and Program of Construction	[25]
Site Investigation Reports	[14]
The schedule of key and critical equipment to be deployed on the work as per agreed program of construction	[25]
The Employer is : Name: **Bangalore Water Supply and Sewerage Board** Represented by Chief Engineer (WWM-P-East) Address: Bangalore Water Supply and Sewerage Board 5th Floor, Cauvery Bhavan, BWSSB, K G Road, Bangalore 560 009	[1.1]
The Engineer/Authorised Representative is : Additional Chief Engineer (WWM)-P-East)-1 Bangalore Water Supply and Sewerage Board 5th Floor, Cauvery Bhavan, BWSSB, K G Road, Bangalore 560 009	[1.1]& [5.2]
The name of the Contract is: **Name:** Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project)**	[1.1]
Scope of Work in Brief Design, Construction, Commissioning of **20 MLD STP at Koramangala based on Integrated fixed Film Activated sludge (IFAS-Process) with BNR, Tertiary treatment and Odour control** units including 7 years Operation and Maintenance **(Turnkey Project)**	
The start date shall be the date of issue of notice to proceed with the work	[1.1]
The Intended Completion Date for the whole of the Works is **Thirty (30) months** including monsoon including commissioning from the date of commencement.	[17,26]
Operation and Maintenance: For a period of **Seven (7) years (2555 days),** starting from the date of completion of the works (date of issue of the Taking-Over Certificate)	[62]
Communication	English
Working Hours: 0800 hrs to 1800 hrs on all day of the week. The Contractor shall be responsible to obtain in written consent of the Employer if he desires to work outside these times.	
Defect Liability Period is 365 days after successful commission of the	[44.2.2]

works	
The site possession date is 21 days	[21]
Location of the Site: Koramangala	[1.1]
Insurance Requirement: Refer Appendix -2	[13]
Amount of security Deposit : Five Percent (5%) of the Works Contract Price	[43.1]
Amount of security Deposit : Five Percent (5 %) of the O & M Contract Price	[43.2]
Liquidated Damages for Works: 0.1% of the **Works Contract Price** per day, in the same currency / currencies the Contract Price is payable in.	[41
Maximum amount of Delay Damages for Works: 10% of the **Works Contract Price.**	[41]
Maximum amount of Performance Damages: 10% of the **O&M Monthly Charges.**	[41]
Currencies and proportion: Local Currency:	Indian Rupee (Rs)
The total amount of Advance Payment is 10% of Works Contract Price in two equal instalments. The Employer will make payment of the first instalment of the mobilization advance only after the Contractor has fulfilled the following conditions: (a) Mobilized the Project Manager for the Contract. (b) Established and staffed a functional design office at Bangalore. The Employer will make payment of the second instalment after the Contractor has successfully fulfilled the following conditions: (a) Mobilized the survey and subsoil investigation crews to the Site and commenced the surveys and subsoil investigations. (b) Submitted a list of proposed subcontractors and their respective agreements for approval by the Engineer. (c) Submitted the proposed "Submission and Anticipated Approval Program" for construction documents for approval by the Engineer. (d) Submitted the proposed construction programme for approval by the Engineer. (e) Submitted, for approval by the Engineer, mobilization/ deployment schedules for: (i) Contractor's key personnel required for managing, executing and supervising the Works, (ii) Contractor's Plant, Machinery and Equipment required for executing the Works; and (iii) Procurement Schedule for major materials and equipment to be incorporated into the Permanent Works.	[42]

(f) Submitted a Cash Flow Forecast for approval by the Engineer. (g) Submitted a list of proposed quarries, suppliers and manufacturers, along with their credentials, for approval by the Engineer. (h) Submitted details of funds mobilized by himself as per the Cash Flow Forecasts. (i) Actual deployment of: (i) such Personnel, (ii) Machinery and Equipment, and (iii) placing of orders for major materials and equipment to be incorporated into the Permanent Works, as per the approved deployment schedules. (j) Established the fully furnished Site office(s). (k) Placed confirmed orders for supply of major items of material and equipment which is to be incorporated into the Permanent Works as per the approved procurement schedule. (l) Procured initial quantities of structural steel, pipes/plates, cement, steel, shuttering materials, etc., required for executing the civil works in accordance with the approved schedule. (m) Established and staffed, with qualified personnel a completely equipped testing laboratory at site for quality control purpose. (n) Commenced construction work at the Site in accordance with the approved construction program.	
Start repayment of advance payment: Each instalment of the advance payments shall be repaid in **10 (Ten equal monthly instalments, starting from first RA bill each in the amount of 10% of the amount of the mobilization advance** until such time as the advance payments shall have been fully repaid.	[42]
The DAB shall be Three (3) members	[56]
Appointment (if not agreed) to be made by Institute of Engineers (India)	[56]
The date by which " as-built" drawings in two (2) sets are required within 30 days of issue of certificate of completion of whole or section of the works as the case may be	[48]
The date by which Operating and Maintenance Manuals are required is within 30 days of issue of certificate of completion of Whole or Section of the Work as the case may be.	[48]
The amount to be withheld for failing to supply "As built" drawings and "Supply of Updated Operation and Maintenance Manuals" by the date required is **INR 50,00,000**	[48]
The following events shall also be fundamental breach of the contract 1. The contractor has contravened Sub-clause 7.1 and Clause 9 of CC	[49.2]
The Percentage to apply to the value of the work not completed representing the Employer's additional cost for completing the Works shall be 30 percent.	[50.1]

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Employer's Representative's instructions and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Employer's Representative shall have instructed. For each Provisional Sum, the Employer's Representative may instruct: (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [*Variation Procedure*]; and/or (b) Plant, Materials or services to be purchased by the Contractor, for which there shall be included in the Contract Price: (i) the actual amounts paid (or due to be paid) by the Contractor; and (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the The Contractor shall, when required by the Employer's Representative, produce quotations, invoices, vouchers and accounts or receipts in substantiation.	[63]

Appendix-1

- Terms and Procedures of Payment

In accordance with the provisions of CC & SCC Clause 37 (Terms of Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the Price Breakdown given in the section on Price Schedules. Payments of the contract price shall be made in the currency (Indian Rupees) in which the tender price is expressed in the bid of the successful bidder. Applications for payment in respect of part deliveries may be made by the Contractor as work proceeds.

A) Terms of Payment

Major Work Category	Type of Payment	Payment (in % of Total Price)	Description (Stage of Work)
Designs and Documentation:			
• Site survey and subsoil investigations	LS (Each Item)	25%	Completion of field surveys and subsoil investigations and de-mobilization from site of survey team
		75%	Submission of surveys and soil investigation reports and acceptance by the Employer's Representative.
• Detailed designs and construction documents	LS (Each Item)	20%	Submission of Design & Drawings
		60%	Substantial completion, submission and approval by the Employer's Representative of the designs, drawings and construction documents for all major items of work **Code B approval : 60%**
		20%	Submission and approval by the Employer's Representative of the final designs and construction documents for all remaining and miscellaneous construction details and working drawings. **Code A approval: 40%**
• Other documents (As built drawings, O&M manuals, Training programmes and manuals)	LS (Each Item)	100%	Completion, submission and approval by the Employer's Representative of all other documents as required under the Contract.
Civil Works, Installation and Other Services:			
• General civil works (excavation, site grading, backfilling, fencing, roadwork,	P	95%	Progressive payment commensurate with progress achieved, up to 95% of the Contract price for the subject item.

Major Work Category	Type of Payment	Payment (in % of Total Price)	Description (Stage of Work)
drainage, structures, building other than water retaining structures, etc.,	LS	5%	Balance payable on completion of cleanup, removal of debris and Contractor's equipments. Final grading and restoration of site.
Construction of water retaining structures (e.g. STP units)	P	95%	Progressive payment commensurate with progress achieved, up to completion of works but prior to hydraulic testing, up to 95% of the subject item.
	LS	5%	Balance payment on successful completion of hydraulic testing of water retaining structures.
Supply and Delivery of Plant and Equipment for Incorporation in the Permanent Works:			
• Supply and delivery to site of mechanical and electrical equipment, instrumentation, including pipes, valves, fittings and accessories.	P	60%	Progressive payment for supply, delivery to the site, proper storage and acceptance, up to 60% of the contract price for the relevant item. Supply and delivery of equipment at site shall be in line with the Civil work progress. Contractor shall not deliver equipment to site which will be idle at the site for more than three months without installation.
	LS	20%	LS payment on successful completion of installation and erection of the relevant item.
	LS	10%	LS payment on successful completion of the testing & commissioning, including rectifying any defects observed during this period,
	LS	10%	Certification by the Employer on Successful completion and commissioning.
• Erection, installation, testing Trial run and commissioning of the equipments / structures etc.	LS	100%	LS payment on successful completion of the installation, testing Trial run and commissioning, including rectifying any defects observed during this period
• Testing, Trial run and commissioning of the entire plant	LS	100%	LS payment on successful completion of the commissioning, including rectifying any defects observed during this period
• Supply and delivery to the Site of recommended spare parts, tools and tackles, etc.	P	100%	Progressive payment, commensurate with the approved delivery schedule, for supply, delivery to the site, proper storage and acceptance by the Employer.
Provisional Sum Items:			

Major Work Category	Type of Payment	Payment (in % of Total Price)	Description (Stage of Work)
• As per Requirement (provided if any)	LS	100%	Payment in full upon production of receipts for any approved expenditures.
Operations and Maintenance:			
• Monthly O&M Services	P	100%	On completion of each month's operations and maintenance.

Appendix 2 - Insurance Requirements

Insurance requirements are as under: [13]

Sl.No.	Type of Cover	Minimum cover for Insurance
(i)	Works and of Plant and materials	**Contract Price plus 20%**
(ii)	Loss or damage to equipment	Full replacement cost
(iii)	Loss or damage to property of Third Party	Full replacement cost
(iv)	Personal injury or death insurance	
	(a) for Third Party	The Contractor shall take out and maintain, for the duration of the Contract Period, third party liability insurance in an amount of not less than **Rs. 100 Lakhs** only per occurrence or event with coverage for not less than **4 (four) occurrences or events**. Each time any event occurs or a claim is made under such insurance policy, the Contractor shall immediately extend the coverage by adding an additional event so that the minimum coverage of four events is maintained in force at all times.
	(b) for Contractor's employees or labour	In accordance with the statutory requirements applicable to Karnataka
(v)	Other insurances	As per contract requirement Viz., Workmen Compensation Insurance

Appendix 3 - Price Escalation

A) Price Adjustment Formula for Works Contract:

R = Value of work as defined in Clause 40.1 of Conditions of Contract

(i) Adjustment for labour component:

Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$V_L = 0.85 * P_L/100 * R * (L_i-L_0)/L_0$ where,

V_L = Increase or decrease in the cost of work during the quarter under consideration due to changes in rates for local labour;

L_0 = The average consumer price index for industrial workers for Bangalore Centre for the Quarter preceding the date of opening of tenders as published by the Labour Bureau, Ministry of Labour, Government of India;

L_i = The average consumer price index for industrial workers for Bangalore centre for the quarter under consideration as published by Labour Bureau, Ministry of Labour, Government of India

P_L = Percentage of labour component of the work

(ii) Adjustment for Cement Component:

Price adjustment for increase or decrease in the cost of cement component procured by the contractor shall be paid in accordance with the following formula.

$V_C = 0.85 \text{ X } P_C/100 \text{ X R X } (C_i - C_o) / C_o$, Where,

V_C = Increase or decrease in the cost of the work during the quarter under consideration due to changes in the rates for cement;

C_o = The all India average wholesale price index for cement (Ordinary Portland Cement) for the quarter preceding the date of opening of the tenders as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India , New Delhi;

C_i = The all India average wholesale price index for cement (Ordinary Portland Cement) for the quarter under consideration as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

P_C = Percentage of cement component of the work

Note: For the application of this clause index of Ordinary Portland Cement has been chosen to represent Cement Group. This may be changed depending on the major type of steel used depending on the nature of work.

(iii) Adjustment for Steel Component:

Price adjustment for increase or decrease in the cost of steel procured by the contractor shall be paid in accordance with the following formula.

$V_S = 0.85 \text{ X } P_S/100 \text{ X R X } (S_i - S_o)/S_o$ where,

V_S = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for steel;

S_o = The all India average wholesale price index for steel (M.S.Bars and rods) for the quarter preceding the date of opening of Bids as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

S_i = The all India average wholesale price index for steel (M.S. Bars and Rods) for the quarter under consideration as published by the Office of Economic Advisor, Ministry of Commerce and Industry, New Delhi

P_S = Percentage of steel component of the work

Note: For the application of this clause, index of M.S.Bars and Rods has been chosen to represent steel group. This may be changed depending on the major type of steel used depending on the nature of work.

(iv) Adjustment of Fuel and lubricant component

Price adjustment for increase or decrease in cost of Fuel and Lubricants shall be paid in accordance with the following formula:

$V_F = 0.85 \text{ X } P_F /100 \text{ X R X } (F_i - F_o)/ F_o$, Where,

V_F = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for Fuel and Lubricants.

F_o = The official retail price of High Speed Diesel (HSD) at the IOC/HPCL/BPL or other consumer pump at Bangalore on the day 30 days prior to the date of opening of Bids.

F_i = The official average retail price of High Speed Diesel (HSD) at the IOC/HPCL/BPL at Bengaluru in the month under consideration.

P_F = Percentage of Fuel and Lubricant component of the work.

(v) Adjustment for Plant and Machinery Spares Component

Price adjustment for increase or decrease in the cost of plant and machinery spares procured by the contractor shall be paid in accordance with the following formula:

$V_P = 0.85 \text{ X } P_P/100 \text{ X R X } (P_i – P_o)/P_o$, Where

V_P = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for plant and machinery spares.

P_o = The all India average wholesale price index for Heavy machinery and parts for the quarter preceding the date of opening of bids, as published by the Office of the Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

P_i = The all India average wholesale price index for Heavy machinery and parts for the quarter under consideration as published by the Office of the Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

P_B = Percentage of Plant and Machinery Spares component of the work.

(vi) Adjustment for Other materials

Price adjustment for increase or decrease in the cost of other materials other than cement, steel, bitumen and Fuel and Lubricants, procured by the contractor shall be paid in accordance with the following formula:

$V_M = 0.85 \text{ X } P_M/100 \text{ X R X } (M_i – M_o)/M_o$, Where

V_M = Increase or decrease in the cost of work during the quarter under consideration due to changes in the rates for local materials other than cement, steel, bitumen and Fuel and Lubricants & Spares.

M_o = The all India average wholesale price index for all commodities for the quarter preceding the date of opening of bids, as published by the Office of the Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

M_i = The all India average wholesale price index for all commodities for the quarter under consideration as published by the Office of the Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi

P_M = Percentage of other material component (Other than cement, steel, bitumen and Fuel and Lubricants & Spares) of the work.

The following percentages will govern the price adjustment for the entire works contract:

For Works Contract

Sl. No	Description of Co-efficient	Range of Weightings %	Weightings %: Bidders to Specify below
1	Labour (P_L)	15 - 20	
2	Cement (P_C)	15 - 20	
3	Steel (P_S)	10 - 15	
4	Fuel and Lubricants (P_F)	3 - 8	
5	Plant and Machinery Spares (P_P)	20- 30	
6	Other Materials (P_M)	15	15
	Total		**100**

Sources of Indices: The sources of the indices shall be as follows:

Type of Index	Source
Cost Index for Labour	The Consumer Price index for industrial workers for Bangalore centre for the month under consideration as published by Labour Bureau, Ministry of Labour, Government of India (Base 2001=100)./latest base year if published on the date of bid submission.
Cost Index for Steel	Wholesale price index Steel, (M.S. semi finished steel) as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi. (Base Year = 2011-12)/latest base year if published on the date of bid submission.
Cost Index for Ordinary Portland Cement	Cost Index for Cement: Wholesale Price Index for Manufacture of price index for Ordinary Portland Cement as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi. (Base year = 2011-12)/ latest base year if published on the date of bid submission.
Cost Index for Fuels and Lubricants	Official average retail price of High Speed Diesel (HSD) at the IOC/HPCL/BPL at Bengaluru in the month under consideration.

Plant & Machinery	Wholesale Price Index for Manufacture of Machinery and Equipment as published by the Office of Economic Advisor, Ministry of Commerce and Industry, Government of India, New Delhi (Base Year 2011-12=100)/ latest base year if published on the date of bid submission

B) Price Adjustment Formula for O&M Contract

The amount payable to the Contractor and valued at base prices in accordance with the payment Schedule shall be adjusted for rises or falls in the cost of Labor, Chemicals , Fuels and other inputs to the Operation and Maintenance of the Plant , by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in costs to the Contractor during Operation and Maintenance is not covered by the provisions of this or any other clause in the Contract, the O & M Contract Price shall be determined to include amounts to cover the contingency of such other rise or fall in costs.

Adjustment Formula: The amount to be added to or deducted from the Interim Payment Certificates for changes in cost and legislation shall be determined from the formulae. The formulae will be of the following general type:

$$Pn = a + b\frac{Ln}{Lo} + c\frac{Cn}{Co} + d\frac{Fn}{Fo} + etc$$

Where:

"**Pn**" is the adjustment factor to be applied to the payment for Operation and Maintenance of the Plant carried out in month "n";
"**a**" is a fixed coefficient, representing the non-adjustment portion;
"**b**", "**c**", "**d**", etc., are coefficients representing the estimated proportion of each cost element (labor (L), Chemicals (C), Fuels and lubricants (F), etc.) in the Operation and maintenance of the plant , as specified below;
"**Ln**", "**Cn**", "**Fn**", etc., are the current cost indices or reference prices for month "n"to which the particular Interim Payment Certificate is related;
"**Lo**", "**Co**", "**Fo**", etc., are the base cost indices or reference prices corresponding to the above cost elements, on the Base Date as defined in the Section below.
The source of indices shall be those listed in the subsequent sub paragraphs.

Sources of Indices: The sources of the indices shall be as follows:

Type of Index	**Source**
Cost Index for Labour	The Consumer Price index for industrial workers for Bangalore centre for the month under consideration as published by Labour Bureau, Ministry of Labour, Government of India (Base 2001=100)./latest base year if published on the date of bid submission.
Cost Index for Chemicals	The average wholesale price index for Basic Heavy Inorganic Chemicals, as published by the **Reserve Bank of India, Table No. 39 for** India (Base 2004-05 = 100./latest base year if published on the date of bid submission.

Type of Index	Source
Cost Index for Fuels and Lubricants	Official average retail price of High Speed Diesel (HSD) at the IOC/HPCL/BPL at Bengaluru in the month under consideration.

Weighting and Adjustment Factors: The weightings (coefficients) for each of the factors of cost, shall be as follows:

For O&M Contract

Co-efficient	Description of Co-efficient	Range of Weightings%	Weightings% "Bidders to Specify below
(a)	Fixed Co-efficient	20	20
(b)	Labour	20 - 30	
(c)	Chemicals	40 - 50	
(d)	Fuel	10	10
		Total	100

The weightings shall be adjusted if, in the opinion of the Engineer, the weightings are rendered unreasonable, unbalanced, or inapplicable as the result of changes in the methods of performance of Operation and Maintenance of the plant and or for any other reason. The decision of the Engineer shall be final and binding to the Contractor.

Appendix 4 - Time Schedule

The time schedule from the Start date of the contract shall be as follows:

Milestones of Works Description

Sl.No	Work Description	Time from Date of Notice to Proceed (months)										
		3 months	6 months	9 months	15 months	18 months	21 months	24 months	27 months	30 months	33 months	36 months
1	**Mobilization**											
	Establish site offices	100%										
	Set up laboratory	100%										
	Site surveys and investigations	100%										
	Finalization of work plan	100%										
2	**Sewage Treatment Plant**											
	Mobilize construction equipment	Start	100%									
	Place orders for plant and equipment		Start	25%	50%	75%	100%					
	Civil works:											
	Preliminary and Primary Structures		Start	25%	50%	75%	100%					
	Biological Treatment			Start	25%	50%	75%	100%				
	Advanced Sludge Treatment				Start	25%	50%	75%	100%			
	Chemical & Chlorine Building				Start	25%	50%	75%	100%			
	Receipt of plant and equipment				Start	10%	80%	100%				
	Erection of plant and equipment							Start	50%	75%	100	
	Mechanical and electrical installation							Start	50%	75%	100	
	Trial run and commissioning										Start	100%
3	**Power Supply Systems STP including 11kV single circuit tower lines**											
	Obtain design approvals	Start	25%	50%	75%	100%						
	Mobilize construction equipment			Start	75%	100%						
	Place orders for substations		Start	25%	50%	75%	100%					
	Receive materials		Start	50%	75%	100%						
	Erect and install				Start	25%	50%	75%	100%			
	Energize, test and commission									Start	100%	
4	**Plant Road Construction:**											
	Mobilize construction equipment					Start	50%	100%				
	Rough grading and earthworks						Start	50%	100%			
	All-weather surfacing								Start	100%		
	Establish hot mix plant									Start	100%	
	Final grading and finishing									Start	100%	

Appendix 5 – List of Documents for Approval or Review

Pursuant to SCC Sub-Clause 18.6, the Contractor shall prepare and present to the Engineer in accordance with the requirements of SCC Sub-Clause 25.3.2 (Program of Performance), the following documents for

(10) **Approval**

1. PERT Chart for various activities for entire including submission of Designs.
2. Proposed Layout Plan of the STP site showing location of all the components.
3. Method Statement for Rehabilitation and upgradation of existing STP to meet latest discharge standards.
4. Proposed Flow Chart of the STP showing the levels and technology descriptions.
5. Design Criteria and parameters.
6. Hydraulic Design of existing components of STP.
7. Structural Design of the civil structures and design of Mechanical and Electrical items.
8. Other details as provided in the Specifications.

(B) Review

NIL

Appendix 6 – Functional Guarantees

Damages for Failure to Pass the Tests on Completion and during the O&M Period.

<table>
<tr><td>• Effluent Quality: Failure to achieve the specified effluent quality requirement at the outlet of the chlorine contact tank during Test on Completion:</td><td>• Damages as Percent of the Contract Price for each additional “quantum” (as defined below) of the effluent quality parameter, or part thereof, beyond the specified maximum concentration, present in the actual effluent produced during the Tests on Completion. The maximum concentration at plant effluent shall be based on Daily basis.</td></tr>
<tr><td></td><td>
<table>
<tr><th>Percent of (STP) Work Contract Price</th><th>For each additional or part of parameter</th></tr>
<tr><td>2%</td><td>2 mg/L, BOD</td></tr>
<tr><td>2%</td><td>2 mg/L, TSS</td></tr>
<tr><td>2%</td><td>2 mg/L, TN</td></tr>
<tr><td>1%</td><td>10 mg/L, COD</td></tr>
<tr><td>1%</td><td>0.2 mg/L, TP</td></tr>
<tr><td>2%</td><td>20 MPN/100mL, Fecal Coliform</td></tr>
<tr><td colspan="2">For STP, Damages shall not exceed 10% of that Works Contract Price. Further, all remedies other than damages, including but not limited to construction of additional facilities, additional equipment and repair and/or replacement of the installed equipment shall continue to be fully available to the Employer, and the Employer may choose to invoke any or all of them at any time in accordance with the terms of the Contract.</td></tr>
</table>
</td></tr>
<tr><td>• Effluent Quality: Failure to achieve the specified effluent quality requirement at the outlet of the chlorine contact tank during the O&M Period</td><td>• Performance Damages as Percent of the O & M Monthly payment of STP. For STP that fails to pass the Tests during O & M period for each additional “quantum” (as defined below) of the effluent quality parameter, or part thereof, beyond the specified maximum concentration
<table>
<tr><th>Parameter of (STP) O & M Monthly payment</th><th>For each additional or part of parameter</th></tr>
<tr><td>2%</td><td>2 mg/L, BOD</td></tr>
<tr><td>2%</td><td>2 mg/L, TSS</td></tr>
<tr><td>2%</td><td>2 mg/L, TN</td></tr>
</table>
</td></tr>
</table>

	1%	10 mg/L, COD
	1%	0.2 mg/L, TP
	2%	20 MPN/100mL, Fecal Coliform
Power Consumption: Excess consumption of electrical energy for Operating and Maintaining of STP and related facilitates	Equal to the estimated cost of the excess energy requirements for Operating and Maintaining the STP, Pumping stations and related facilities at the rated capacities for a period of 7 (Seven) years after completion, based on the maximum consumption provided by the contractor under the relevant technical schedule in Section-7, Specifications and current rates charged by the power supply company for electricity consumed by the plant and facilities.	
Chemicals and material Consumption: Excess consumption of Chemical & materials for Operating and Maintaining of STP and related facilitates	Equal to the estimated cost of the **excess chemicals** and materials requirements for Operating and Maintaining the STP and related facilities at the rated capacities for a period of 7 (Seven) years after completion, based on the maximum consumption provided by the contractor under the relevant technical schedule in Section-7, Specifications and current rates charged by the Central stores of BWSSB shall be considered for excess consumed chemicals and same shall be deducted in the monthly O & M bills.	

SECTION 7, 7A &7B: FORM OF TECHNICAL PROPOSAL, SPECIFICATIONS AND TECHNICAL SCHEDULES

SEPARATELY ENCLOSED

SECTION 10

FORMAT OF BANK GUARANTEE FOR SECURITY DEPOSIT

To: _____ [name of Employer]
_____ [address of Employer]

WHEREAS _____[name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No._____, dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of Rs._____ [amount of guarantee]Rupees_____[in words], and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 30 days from the date of expiry of the Defects Liability Period.

Signature and seal of the Guarantor _____
Name of Bank _____
Address _____
Date _____

FORM OF BANK GUARANTEE – ADVANCE PAYMENT

[Name of Contract]
To: [Name and address of Employer]
Dear Ladies and/or Gentlemen,
We refer to the Contract Agreement ("the Contract") signed on [date] between you and [name of Contractor] ("the Contractor") concerning the Services set out in the Contract_____ [Name of the Contract].

Whereas, in accordance with the terms of the Contract, the Employer agreed to pay or cause to be paid to the Contractor an advance payment in the amount of [number] percent (____%) of the Contract Price for the _____Period due to the Contractor, namely a payment of: _____[amount in figures], _____[amount in Words].

By this letter we, the undersigned, [name of Bank], a Bank (or company) organised under the laws of [country of Bank] and having its registered/principal office at [address of Bank], do hereby jointly and severally with the Contractor irrevocably guarantee repayment of the amounts upon the first demand of the Employer without cavil or argument in the event that the Contractor fails to commence or fulfil its obligations under the terms of the Contract, and in the event of such failure, refuses to repay all or part (as the case may be) of the advance payment to the Employer.

Provided always that the Bank's obligation shall be limited to an amount equal to the outstanding balance of the advance payment, taking into account such amounts that have been repaid by the Contractor from time to time in accordance with the terms of payment of the Contract as evidenced by appropriate shipping documents or payments certificates.

This Guarantee shall remain in full force from the date upon which the advance payment is received by the Contractor until the date upon which the Contractor has fully repaid the amount is advanced to the Employer in accordance with the terms of the Contract. At the time at which the outstanding amount is nil, this Guarantee shall become null and void, whether the original is returned to us or not. Any claims to be made under this Guarantee must be received by the Bank during its period of validity.

Yours truly,

[Name of the Bank]

Authorized Signature

SECTION 8: DRAWINGS
SECTION 9: PRICE SCHEDULE

SEPARATELY ENCLOSED